



**University of
Reading**

Corporate Social Irresponsibility and Shareholder Value

*Thesis submitted in partial fulfilment of the requirement for
the degree of Doctor of Philosophy*

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Declaration

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

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Abstract

This thesis attempts to make original contributions by addressing the empirical relationship between corporate social irresponsibility (CSiR) and shareholder value grounded on separate research purposes and paradigms.

The first essay directly links CSiR activities to reputation risk. Using a large sample of 7,442 companies spread over 44 countries, this study investigates the differences between portfolios of stocks exposed to high and low reputation risk across developed and developing countries. The main results indicate that stocks with low reputation risk earn higher abnormal returns than stocks with high reputation risk after controlling for well-known risk factors. This research also finds that differences in terms of abnormal returns between high and low reputation risk portfolios are more significant in developing countries than in developed countries, and the differences are more significant in non-financial sectors than in financial sectors.

The second essay examines the impact of CSiR behaviour on long-run abnormal returns in China. This study builds calendar-time portfolios consisting of Chinese stocks engaged in a wide range of CSiR issues and compares the financial performance between news coverage periods and no-news coverage periods. The main findings suggest that the companies involved in corporate governance and product-related controversies suffer the most in shareholder value destruction. The results also show that the effects of CSiR behaviour on shareholder value are contingent on and moderated by factors, such as firm characteristics, investor types, news characteristics, and market environments.

The third essay extends the research topic to the environmental, social, and governance (ESG) disclosure which measures the transparency levels of companies' reporting on ESG-related information. Using a large US sample, this essay investigates whether higher transparency on ESG disclosure provides insurance-like protection for firms involved in CSiR activities. Although there is no explicit protection for high ESG disclosure companies, the results show that the market more likely penalises low ESG disclosure companies. In addition, the results indicate that the moderating effect is more pronounced in corporate governance dimensions, large firms, consumer sectors, and periods after the financial crisis.

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List of Abbreviations

CFP	Corporate financial performance
CSiR	Corporate social irresponsibility
CSP	Corporate social performance
CSR	Corporate social responsibility
ESG	Environmental, social and governance
GHG	Greenhouse gas
KLD	Kinder, Lydenberg and Domini
NGO	Non-governmental organisation
QFII	Qualified foreign institutional investors
SCIO	State Council Information Office of the People’s Republic of China
SIIO	State Internet Information Office of the People’s Republic of China
SRI	Socially responsible investment
UNPRI	United Nations Principles for Responsible Investment

1 Introduction

1.1 Background and motivations

Although a considerable amount of previous literature has concentrated on corporate social responsibility (CSR), the opposite side of CSR – termed as corporate social irresponsibility (CSiR) – has received less attention even with the increased media coverage on irresponsible corporate scandals. Some typical CSiR behaviour includes environmental pollution, human rights abuses, child labour, corruption and fraud. These kinds of behaviour can destroy a firm's reputation in different ways over different time horizons, and even if the firm survives the scandal, it cannot easily regain trust with key stakeholders.

Some studies have revealed a phenomenon by which firms actually engage in both CSR and CSiR behaviour and even act simultaneously (e.g., Fombrun, Gardberg and Barnett, 2000; Strike, Gao and Bansal, 2006; Muller and Kraussl, 2011; Oikonomou, Brooks and Pavelin, 2014b). Firms may continually maintain a good public image through CSR activities but also engage in CSiR activities. For instance, Enron, the Texan energy company which donated large amounts to society and won several awards for being socially responsible, brought itself down in 2001 when it was involved in a massive corporate accounting scandal. Therefore, it is important to study the reasons for a firm's commitment to CSR or CSiR activities and the consequences of this commitment on the shareholder value.

Currently, there is lack of consensus on whether or not adopting CSR can bring economic benefits. For instance, Hillman and Keim (2001) identify a positive relationship between CSR and corporate financial performance (CFP), whereas Brammer, Brooks and Pavelin (2006) find a negative relationship between the two. Bauer, Koedijk and Otten (2005) and Renneboog, Horst and Zhang (2008) demonstrate that CSR and CFP are unconnected. In addition, the meta-analysis provided by scholars, such as Orlitzky, Schmidt and Rynes (2003), Margolis, Elfenbein and Walsh (2007), and Wood (2010), prove that the overall relationship of CSR and CFP is positive but weak.

Given that the impact of CSR on a firm's financial performance is still not clear, CSiR behaviour, especially those involving severe misconduct resulting in large fines, are highly likely to be penalised by the stock market. When some of the world's worst scandals, such as China's melamine contamination incident in 2008, BP's oil spill in the Gulf of Mexico in 2010, and the Volkswagen emission scandal in 2015, hit the headlines, it adversely affected the concerned companies by driving their share prices to the bottom. These corporate events raise questions such as: What are the consequences of CSiR behaviour that may not be necessarily illegal depending on the regulatory environment, or may be less severe and less well known? What are the differences between news coverage in various types, such as environmental, social, and governance (ESG) news? What is the impact of corporate news reported in different regulatory environments, from different news sources and even in different languages? If news coverage on CSiR activities can cause stock price damage, how long will it last? Will the stock prices recover?

CSiR behaviour has many consequences. The majority of the respective literature has focused on the impact on decreased stock market performance (e.g., Khanna, Quimio and Bojilova, 1998; Gupta and Goldar, 2005; Karpoff, Lott and Wehrly, 2005; Tipton, Bharadwaj and Robertson, 2009). A number of authors have argued that CSiR has other adverse effects, such as damaged consumer relationships, increased cost of capital and tarnished reputation (e.g., Karpoff and Lott, 1993; Fombrun, 1996; Brammer and Pavelin, 2006; Wiesenfeld, Wurthmann and Hambrick, 2008; Karpoff, Lee and Martin, 2009). A few other studies have indicated the factors that would potentially make the firm suffer less if they engaged in irresponsible behaviour. For instance, Godfrey, Merrill and Hansen (2009) find that CSR activities can create value for shareholders in the face of some types of negative events. Other studies have suggested that moderating factors including corporate philanthropy (Williams and Barrett, 2000), large firm size (Colwell, Noseworthy and Alexeev, 2010) and good corporate reputation (Janney and Gove, 2011) can provide protection for firms involved in negative events.

The main motivation for this thesis is, firstly, to provide a thorough understanding of CSiR given that the complex nature of CSiR and the quantifiable measurement of CSiR is rather difficult. A serious limitation of the existing literature is the lack of comprehensive and reliable data to measure CSiR. Most studies use the MSCI acquired

Kinder, Lydenberg, and Domini (KLD) database to measure CSiR (e.g., Waddock and Graves, 1997; Godfrey, Merrill and Hansen, 2009; Barnett and Salomon, 2012; Jo and Na, 2012; Oikonomou, Brooks and Pavelin, 2014b); however, KLD database lacks clarity and coverage because it mixes CSR and CSiR in the same database. Strike, Gao and Bansal (2006) point out one limitation of KLD is that specific items do not work well on corresponding screens and call for a sounder measurement of CSR and CSiR. Combining the positive and negative indicators in the same research study can hide any ‘countervailing effects’ of these indicators on the dependent variable, unless their convergence is demonstrated empirically (Mattingly and Berman, 2006: 38). To avoid this shortcoming associated with KLD, some studies have used hand-collected data from news databases, such as Factiva, or they have directly collected data from the *Financial Times*, *The Wall Street Journal* (WSJ) and company reports; however, these studies do not provide sufficient coverage on CSiR. The data used in these studies are usually limited to a single topic, such as product recalls or environmental pollution. In this thesis, I have overcome these limitations by sourcing the most comprehensive data of CSiR from RepRisk, an independent company that daily tracked multiple dimensions of CSiR issues for companies worldwide.

Secondly, this thesis aims to study the impact of CSiR on the shareholder value in the long term and in different countries. Prior literature on the relationship between CSiR and CFP mostly focuses either on the short-term impact of CSiR (Frooman, 1997) or its impact on developed markets (e.g., Brammer and Pavelin, 2006; Kempf and Osthoff, 2007; Kruger, 2015). Unlike tangible information, such as a significant fine being paid by the concerned company, CSiR behaviour, especially those that are unlikely to impact firm financial performance in the short term, can hardly be accurately evaluated in a short-term event study. Numerous studies have proved that CSiR is mostly likely to impact firm reputation in the long term (e.g., Barnett and Salomon, 2006; Edmans, 2011; Eccles, Ioannou and Serafeim, 2014); therefore, it is more appropriate to study its long-term impact on the shareholder value. In addition, little attention has been paid to whether there are differences in the impact of CSiR on shareholder value across developed and developing countries, which have vastly different economic, social, and cultural conditions. For instance, the stock market should react in different ways to negative incidents based on an environment with more stringent regulations or more transparent information flow.

Lastly, the existing literature lacks the empirical findings of CSiR in different characteristics. Negative news coverage has varying severity levels, which could impact stakeholders differently. However, in the empirical research setting, most studies use a universal fit for news in different severity levels. Also, different types of investors, such as local and foreign investors, may treat news differently because of their vastly different understandings of culture and environment. This thesis aims to fill these gaps and throw some light on the numerous factors that remain unexplored in the industry and academic research.

1.2 Contributions of the thesis

This thesis contributes to new knowledge and improves understanding of CSiR by empirically investigating how stock markets react to CSiR behaviour and incorporate CSiR in asset pricing research. The following summarises three types of contributions – theoretical, methodological and practical contributions.

On the theoretical level, CSiR is a fairly new topic in the current literature as most studies have focused on CSR. Perhaps the most important contribution of this thesis is to concentrate on the important aspects of irresponsible corporate actions that have rarely been studied. It provides a new direction to the current research by providing risk perspectives on the CSiR research. Firstly, this thesis has moved beyond the traditional measures of corporate negative behaviour by studying a much wider range of CSiR behaviour. Based on an extensive database provided by RepRisk, I have conducted a multidimensional analysis of CSiR activities on a large scale which has rarely been done in the existing literature. This is a key aspect in CSiR studies because a single dimension of irresponsible behaviour is not representative, and investors are more likely to make investment decisions based on the complete picture they have of a company's profile.

Secondly, by conducting a multidimensional analysis of CSiR activities, the thesis offers additional evidence on the long-term financial impacts. CSiR issues are intangibles, not readily quantifiable, and such information will not be immediately reflected by the stock market (Edmans, 2011). This suggests that intangible information, such as CSR or CSiR, will take longer to be absorbed in share prices. When the response time is longer than the estimated window periods, short-term event studies would not capture significant effects. It is therefore appropriate to employ a calendar-time portfolio approach to investigate

how variations in the dimensions and characteristics of CSiR issues affect CFP in the long term.¹ This thesis also contributes to finance literature by investigating the impact of the media on stock prices (e.g., Hong, Lim and Stein, 2000; Chan, 2003; Tetlock, Saar-Tsechansky and Macskassy, 2008; Fang and Peress, 2009; Chen et al., 2014; Hillert and Ungeheuer, 2015), especially those focusing on negative news or investor sentiments (e.g., Hong, Lim and Stein, 2000; Tetlock, 2007). The thesis is distinct from the above-listed studies because it focuses on CSiR and related issues.

Thirdly, this thesis addresses the issue of CSiR from new comparative perspectives. For instance, it compares the differences between the different dimensions of CSiR, including environmental, social, and corporate governance (ESG) and other issues. It provides evidence for market reactions to CSiR activities in both developed countries and developing countries, and contributes towards understanding the variations of CSiR across developed and developing contexts. Also, it provides extra support for differentiating the financial and non-financial sectors. In addition, it differentiates domestic and foreign investors with respect to potentially different information environments. The results suggest that the shares of the firms targeted at domestic investors receive significant negative returns whereas shares with strong foreign investor ownership may easily escape the financial penalty associated with CSiR issues. This finding highlights the differences between domestic investors and foreign investors in their perceptions of and reactions to various CSiR issues.

On the methodological level, a significant breakthrough for this thesis is overcoming the difficulties associated with measuring long-term financial performance. Building on the calendar-time portfolio approach developed by Jegadeesh and Titman (1993) and Fama (1998), I propose a new way of measuring news media impact by comparing the difference in performance between periods of news coverage and no-news coverage. This not only examines the post-news coverage performance of firms with poor CSR practice, but also tests whether firms can recover after the news coverage periods. Previous studies have mainly focused on the period after the news coverage but have neglected the periods when firms have not been highly influenced by the news. In the absence of additional

¹ There are two types of long-run portfolio approach: event-time portfolio approach and calendar-time portfolio approach. The latter is the most used methodology which is originally developed by Jaffe (1974) and Mandelker (1974). Details of this method are discussed in Chapter 3.

tangible and intangible information, I find that firms penalised for CSiR behaviour can recover after a certain period of news coverage. This is likely to happen when the firm's share price is low enough to be considered a bargain or the company regains its reputation to a certain extent.

The additional methodological contribution is that this thesis proposes an improved market benchmark measure for Fama-French factor models. Cremers, Petajisto and Zitzewitz (2013) suggest that the Fama-French market factor constructed by value-weighted excess return of all assets in the Centre for Research in Security Prices (CRSP) includes not only US common equity, but also non-US firms, closed-end funds, Real Estate Investment Trusts (REITs), and other assets that dramatically underperformed US common stocks. Therefore, I expect that the abnormal returns (alphas) based on the Fama-French market benchmark will tend to be positive. I provide an alternative market factor constructed by value-weighted excess returns of all companies in the sample. The self-constructed benchmark is appropriate for studies with unusual market and sector coverage because it can closely track the country and sector weights in the sample and reflect the risk characteristics of matching stocks. The calculation of abnormal returns based on the normal market index is misspecified; however, if matching sample firms serve as the market index, this aberration can be corrected (Barber and Lyon, 1997). For instance, it would not be appropriate to evaluate the risk-adjusted return of a developed country's stocks sample on an MSCI All Country Index. Also, it would not be appropriate to evaluate the risk-adjusted returns of an all-country sample when the weights of the country in the sample are vastly different from the MSCI All Country Index.

In terms of practical contributions, this thesis addresses general insights for practitioners and policy makers in each empirical chapter. Chapter 4 provides the differences between periods of news coverage and no-news coverage. This would allow portfolio managers, especially those managing socially responsible investment (SRI) funds, to better understand how to apply hedge strategies to companies involved in CSiR incidents.

In Chapter 5, the uniqueness of the Chinese stock market draws foreign investors from outside of Mainland China; however, the different cultural understandings and information asymmetry make it imperative for the local investors and foreign investors to be aware of the varying impact of CSiR issues in China. More importantly, the Chinese government's role is crucial to practitioners who have a limited understanding of the role

played by the Chinese government in the stock market. Extra precautions should be taken while making investment decisions in companies with both positive and negative CSR image because companies tend to use CSR as a greenwashing strategy to cover their irresponsible actions. This study has included the severity levels of news coverage in the portfolio formation process because the magnitude of CSiR issues will depend on the severity, novelty, source reach, and the language used when reporting the issues. Adding the consideration of severity levels of news coverage in the portfolio formation process creates a more appropriate approach for studies considering different types of news coverage.

In Chapter 6, the study provides empirical evidence on the relationship among ESG disclosure, CSiR news and financial performance. It contributes to the literature by investigating ESG disclosure and by determining whether the detrimental effects of irresponsible corporate actions are reduced when CSiR news is announced. This study also provides an appropriate and comprehensive measurement of ESG performance and best portfolio choices.

To summarise, this thesis deepens the understanding of CSiR and related factors, such as ESG disclosure, country characteristics, investors and governments. This dissertation contributes to the knowledge of practitioners who are making investment decisions in firms engaged in socially irresponsible behaviour.

1.3 Thesis structure

The remainder of the thesis is proceeded as follows.

In Chapter 2, I provide a literature review of CSiR. I begin by defining CSiR and analysing the attributes of CSiR behaviour in the relevant literature. I then review the literature on both CSR and CSiR. This chapter also provides tables of the lists of CSR and CSiR studies.

Chapter 3 provides a detailed description of CSiR data and suitable measurements for this type of data. After a brief introduction of RepRisk, which is a data provider that covers the most comprehensive data on CSiR, I provide descriptive statistics for the whole raw dataset received from RepRisk. I continue by highlighting the benefits and limitations of the dataset and provide detailed arguments for choosing a suitable measurement for this

database. Chapter 4, Chapter 5 and Chapter 6 are three empirical chapters on the topics of CSiR. Table 1.1 provides an overview of these three empirical chapters.

Chapter 4 links CSiR activities to reputation risk and conducts a large-scale investigation of portfolios that hold stocks from CSiR activities. This empirical chapter firstly provides a comparative analysis on a global scale, the second empirical chapter focuses on the Chinese stock market, and the third empirical chapter focuses on the US stock market. In the literature review, I compare studies between developed markets and developing markets. The dataset used in this study is from RepRisk; therefore, I explain the details of the data employed in this chapter. I explain the process of sample selection and portfolio formation. After this, I discuss the results based on different settings and also provide robustness tests by using an alternative categorising strategy and a characteristic-matched portfolio.

Chapter 5 aims to investigate whether and how CSiR issues affect CFP in the Chinese stock market. I begin by reviewing literature pertaining to the relationship between CSiR and CFP, and highlight the role of investors, the characteristics of news and the government pressure. The dataset used in this study is from RepRisk but from a different type of data; therefore, I provide extra details on RepRisk data and the calendar-time portfolio approach used in this chapter. After specifying the regression model used, I present the summary statistics and discuss the main results and additional results on investor types, news characteristics and government pressure. Lastly, a series of different robustness tests are explained and presented.

Chapter 6 investigates whether high ESG disclosure rating – termed as high transparency – provides insurance-like protection for firms engaged in CSiR behaviour. This chapter follows a similar structure as the previous chapter. I firstly provide the details of the theoretical framework with literature support. I continue by introducing the data sources including RepRisk (to measure CSiR activities) and Bloomberg (to measure ESG disclosure and transparency), and explaining the details of the sample selection process. After this, I provide various portfolio-level analysis and robustness tests including controlling different market benchmarks, news coverage time horizons, firm sizes, extreme values, and sectors.

In the last chapter, I summarise the empirical findings of the previous chapters, discuss the research limitations and make suggestions for future research.

Table 1.1 Overview of empirical chapters

	Essay One	Essay Two	Essay Three
Topic	Corporate social irresponsibility: A global perspective	Corporate social irresponsibility: News characteristics, investors types, and government pressure	The value of transparency
Aims	This essay conducts a large-scale investigation of portfolios holding stocks exposed to reputation risk and compares the differences between developed and developing countries, financial and non-financial sectors.	Based on an unexplored dataset, this study provides the first thorough analysis of the impact of CSiR activities on firm financial performance in China.	This study investigates whether ESG disclosure and transparency provides insurance-like protection for firms engaged in negative ESG behaviour.
Key literature	Gompers, Ishii and Metrick (2003), Kempf and Osthoff (2007), Statman and Glushkov (2009), Edmans (2011), Oikonomou, Brooks and Pavelin (2014b)	Chan (2003), Kempf and Osthoff (2007), Fang and Peress (2009), Oikonomou, Brooks and Pavelin (2014b)	Fombrun, Gardberg and Barnett (2000), Godfrey, Merrill and Hansen (2009), Jo and Na (2012), Eccles, Ioannou and Serafeim (2014)
Data source	Main data source uses RepRisk Index (RRI) data.	Main data is drawn from RepRisk news data and Chinese government website.	Main data is collected from Bloomberg ESG disclosure data and RepRisk news data.
Sample	7,442 companies spread over 44 countries from January 2007 to July 2012.	195 Chinese A shares, of which 60 are cross-listed companies during the period from June 2006 to July 2012.	843 US companies with negative media coverage and 674 US companies without negative media coverage from January 2007 to July 2012.
Methodology	Portfolio approach based on index data. I have used three portfolio formation methods: buy and hold portfolios, long-short portfolios and characteristic-matched portfolios. Regression model used CAPM and Carhart (1997) four-factor model.	Portfolio approach based on news coverage in the long term. Regression model used extended Carhart (1997) four-factor model and Carhart (1997) four-factor model with added government factor.	Portfolio approach based on news coverage in both short term and long term. Regression model used Carhart (1997) four-factor model.

	Essay One	Essay Two	Essay Three
Results	<p>1) Stocks with low reputation risk earn higher returns (annual four-factor alpha of 3.1%) than stocks with high reputation risk after controlling for well-known risk factors.</p> <p>2) Compared to developed countries, there are wider significant differences between high and low reputation risk portfolios in developing countries.</p> <p>3) There are more significant differences between high and low reputation risk portfolios in non-financial sectors than financial sectors.</p>	<p>1) Companies involved in corporate governance and product-related controversies suffer the most in shareholder value destruction.</p> <p>2) The effects of CSiR behaviour on shareholder value are contingent, moderated by factors such as firm characteristics, investor types, news characteristics, and government pressure.</p> <p>3) Local investors care more about CSiR issues than foreign investors. News reported in higher rated news characteristics lead to lower abnormal returns. Chinese stock market is indirectly affected by the legitimacy and government power.</p>	<p>1) The protection of ESG disclosure is weak; however, there are significant variations across different dimensions, company sizes, sectors, and different time periods.</p> <p>2) The moderating effect is more pronounced in corporate governance dimension, large size firms, consumer industries, and after the financial crisis period.</p> <p>3) The findings are robust in controlling for different market benchmarks, news coverage time horizons, firm size, extreme value, and sector.</p>
Contributions	<p>1) The research contributes to the variations of CSiR practice in both developed and developing contexts.</p> <p>2) This study features a large-scale investigation of CSiR activities based on a sample 7,442 companies from 44 countries, which are rarely seen in the existing literature.</p> <p>3) I robustly compare portfolios that display diverse characteristics. I build characteristic-matched portfolios to address this issue by matching companies in the same country, sector, and similar size and value.</p>	<p>1) By conducting a multidimensional analysis of CSiR activities, this study provides additional evidence on the long-run financial impacts.</p> <p>2) Building on the calendar-time portfolio approach, I propose a new way to measure news media impact by comparing the difference between news coverage periods and no-news coverage periods.</p> <p>3) The research contributes to the CSiR literature by differentiating domestic and foreign investors with respect to potentially different information environments.</p>	<p>1) This study makes a contribution to the current literature by investigating ESG disclosure and whether the detrimental effects are reduced when CSiR news is announced.</p> <p>2) This study provides an appropriate and comprehensive measurement of ESG performance and best portfolio choices.</p> <p>3) This chapter has implications for academics and investors for understanding the importance of ESG disclosure in financial markets.</p>

2 Literature Review

2.1 Definitions of CSiR

To understand the complex nature of CSiR, it is necessary to study the various definitions of CSiR. There are other terms in the literature having meanings similar to CSiR, such as corporate scandals, socially irresponsible scandals, ethical scandals, and corporate misconduct. The earliest definition of CSiR can be dated back to a study by Armstrong (1977: 185), who defines CSiR using two criteria: 'where great harm is caused to the system' and 'where almost all unbiased observers are in agreement that an irresponsible act has occurred'. Drawing on the stakeholder theory, Strike, Gao and Bansal (2006: 852) suggest that CSiR is 'the set of corporate actions that negatively affects an identifiable social stakeholder's legitimate claims (in the long run)'. In a follow-up study, Pearce and Manz (2011: 563) define CSiR as 'unethical executive behaviour that shows disregard for the welfare of others, that at its extreme is manifested when executives seek personal gain at the expense of employees, shareholders, and other organization stakeholders, and even society at large'. There is no consensus on the definition of CSiR; therefore, this thesis builds on the definition by Strike, Gao and Bansal (2006) that CSiR is the set of corporate actions that negatively affect stakeholder relationships in the long run.

CSiR behaviour can be completely legal or illegal; however, they tend to damage stakeholder relations and may affect both the internal and external environment. As stated by Clark (2008: 11), CSiR is 'all illegal activity as well as that which is unsustainable for the overall system due to the exploitation of negative externalities'. Some corporate behaviours are completely legal in certain environments; however, they can be harmful for society. For example, companies can legally release a significant amount of greenhouse gas (GHG) into the atmosphere, especially in some developing countries that have relaxed environmental regulations. Although socially irresponsible actions and accounting scandals are part of corporate scandals, socially irresponsible actions have adverse effects on the entire society whereas accounting scandals involve only the organisation.

CSiR behaviour can be both intentional and unintentional. An example of unintentional CSiR behaviour is environmental pollution caused by mechanical failure; and an example of intentional CSiR behaviour is environmental pollution caused by intentionally discharging unfiltered waste water. In reality, the financial penalty of both behaviours could be similar because they are often measured by the severity level of pollution. Although environmental impacts are similar, investors should be more tolerant toward unintentional CSiR.

CSiR has been considered as the opposite side of the coin to CSR (e.g., Jones, Bowd and Tench, 2009; Muller and Kraussl, 2011; Pearce and Manz, 2011; Lange and Washburn, 2012). According to Wood (1991: 693), corporate social performance (CSP) is ‘a business organization’s configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm’s societal relationships’. Wood (1991) states that CSR follows the principles of legitimacy, public responsibility and managerial discretion; therefore, any corporate actions that violate those principles may be considered to be CSiR behaviour. Compared to CSR, both the concept and theory of CSiR are underdeveloped because of its complex nature. As a matter of fact, CSiR deserves more attention in academic research because social irresponsibility is even more important than social responsibility. To contribute to society, companies should ensure that they avoid irresponsible actions and devote more resources (if available) to responsible activities. For instance, Lin-Hi and Muller (2013) point out that CSR should require companies ‘doing good’ and also ‘avoiding bad’ because companies need to contribute to the well-being of society.

The individual dimensions of CSR are often grouped into ESG dimensions because of the emerging field of Socially Responsible Investment (SRI). SRI (also known as ethical investment, sustainable investment, and green investment) integrates the ESG criteria into the investment analysis and decision-making process. The remarkable growth of the United Nations Principles for Responsible Investment (UNPRI) to a signatory base of more than US\$30 trillion has prompted increasing interest in ESG investments all over the world. Consequently, large-scale empirical studies have analysed the financial attractiveness of the ESG criteria across a range of developed stock markets. Since CSR is often measured by individual ESG dimensions, the

concepts of CSR performance and ESG performance, CSR disclosure and ESG disclosure are used interchangeably. While there are some differences among the mentioned terms, CSR and ESG will be mentioned intensively throughout the six chapters in order to ensure accuracy and consistency.

2.2 Motivational factors of CSiR

As compared to CSR, the motivating factors for CSiR behaviour are more difficult to ascertain. Most studies have focused on the motivating factors for CSR (e.g., McWilliams and Siegel, 2001; Campbell, 2007; Ioannou and Serafeim, 2012). For example, Campbell (2007: 962) argue that ‘the relative health of corporations and the economy and the level of competition to which corporations are exposed’ will affect the performance of CSR. Moreover, Ioannou and Serafeim (2012) find that in countries with low levels of corruption, firms are more likely to be socially and environmentally responsible. However, only a few studies have investigated the attributes of irresponsible social actions of corporations.

There are many factors that can cause corporations to act irresponsibly. These factors can be classified into two groups: internal and external factors. Profit maximisation is one of the important internal causes. Shareholders are the bearers of the corporations’ residual risks; therefore, the primary purpose of the company is to maximise shareholder value (e.g., Jensen, 2001; Colwell, Noseworthy and Alexeev, 2010). Aggressive emphasis on profit and growth in the firm often results in irresponsible behaviour. Profit-maximizing firms may choose not to invest in pollution control because the financial penalty of irresponsible environment performance is much less than the investment costs (Lanoie, Laplante and Roy, 1998). As suggested by Branson (2003: 400), stock price maximisation might be another internal cause for CSiR: ‘The evil is ‘stock price maximization’ at all costs, by corporations, their managers, and investors. This leads to short termism and to the trampling of the aforesaid non-shareholder constituencies (labor, consumers, the environment, local communities)’.

To identify the detecting mechanisms for corporate frauds, Dyck, Morse and Zingales (2010) study all reported fraud cases in large US companies from 1996 to 2004, and they find that both the obvious actors (investors, SEC and auditors) and the non-traditional players (employees, media, and industry regulators) have been the possible

determinants of corporate fraud. Moreover, high aspirations and high expectations are likely to drive misconduct. Mishina et al. (2010: 702) state that ‘the threat of declines in an organisation’s future relative performance and the potential costs to the organisation and its managers of not meeting internal aspirations and external expectations increase the likelihood of illegal behaviour’.

The external factors include competition and environment, which are the key drivers of CSiR behaviour. Campbell (2007) finds that with poor financial performance, a weak economy, and either high or low levels of competition, firms are more likely to act in socially irresponsible ways; whereas with moderate levels of competition, firms are less likely to act in socially irresponsible ways. Firms can be socially responsible and socially irresponsible simultaneously. External irresponsible behaviour is caused by increased complexity of international diversification. Multinational enterprises need to expand their resources and capabilities to manage subsidiaries that may have lower environmental and social standards (Strike, Gao and Bansal, 2006). For instance, Walmart tried to apply a fair labour policy in China, but the subsidiaries in China still mistreated workers because the parent Walmart did not provide enough financial support to manage the subsidiaries’ activities.

Drawing on the attribution theory, Lange and Washburn (2012: 302) provide an overview of the CSiR attributes. They maintain that CSiR involves the following: ‘(i) rational judgment and inference; (ii) observer biases and perceptual limitations that skew perceptions of the firm and the situation; and (iii) the sensitivity of observer assessments to the ways that others have filtered and framed information about the firm and situation’. However, their conceptual model does not provide information on the motives for corporate irresponsible behaviour, but the perceptions of how people assess the behaviour could affect the understanding of the behaviour.

2.3 Overview of empirical analyses of CSR and CSiR

2.3.1 Empirical analysis of CSR and CFP

Given that firms act both responsibly and irresponsibly and that there is limited literature on CSiR (as compared to CSR), it is necessary to examine the individual dimensions of CSR to provide some research foundations for CSiR. Strike, Gao and

Bansal (2006) examine the relationship between international diversification and social responsibility and argue that the construct of social responsibility should combine the activities of both CSR and CSiR because firms are socially responsible for creating value but they also act irresponsibly. Kotchen and Moon (2012) find that firms can do ‘good’ and also do ‘harm’; they test CSR as an insurance protection to offset CSiR. They find that CSiR led to more CSR, which meant that firms could engage in more responsible activities in order to minimise the negative effect of CSiR.

Given that the individual dimensions of CSR are often grouped into ESG dimensions, studies on the individual dimensions of ESG differ in terms of period, region, data, methodology, and results (See Appendix 2A). ESG research during the past few decades has focussed on prolonged periods (e.g., 10 years) in the developed markets. The popular indicators of ESG performance used in these studies are KLD, Domini and Dow Jones Sustainability Index and Thomson Reuters ASSET4. These indicators help to compare the abnormal performance of ESG-screened funds and conventional funds based on CAPM, Fama and French (1993) three factor model, and Carhart (1997) four factor model. The research results show that ESG-screened funds outperformed, underperformed, or performed no differently from conventional funds. These SRI studies have focused on the US (e.g., Derwall and Koedijk, 2009; Hong and Kacperczyk, 2009), the UK (Gregory and Whittaker, 2007), Canada (Bauer, Derwall and Otten, 2007), Australia (e.g., Tippet, 2001; Humphrey and Lee, 2011), and multi-developed countries (e.g., Schroder, 2004; Bauer, Koedijk and Otten, 2005; Renneboog, Horst and Zhang, 2008).

Despite the overwhelming attention given to the topic of ESG-screened funds, a large and ever-increasing body of literature has focussed on the relationship between individual dimensions of ESG performance and CFP. This includes corporate environmental performance and CFP (e.g., Russo and Fouts, 1997; Derwall et al., 2005; Kim and Statman, 2011), corporate social performance and CFP (e.g., Waddock and Graves, 1997; McWilliams and Siegel, 2000; Baron, Harjoto and Jo, 2011; Barnett and Salomon, 2012), corporate governance performance and CFP (e.g., Gompers, Ishii and Metrick, 2003; Spellman and Watson, 2009; Shan and McIver, 2011), and employee relationships and CFP (Edmans, 2011). The detailed findings for individual dimensions of ESG performance are discussed below.

Environmental performance

Several studies have reported that corporate financial returns are negatively related to environmentally friendly news (e.g., Khanna, Quimio and Bojilova, 1998; Gupta and Goldar, 2005) and positively related to environmentally friendly news (e.g., Filbeck and Gorman, 2004; Nagayama and Takeda, 2006). Based on eco-efficiency scores developed by Innovest Strategic Value Advisors, Derwall et al. (2005) examine the relationship between corporate eco-efficiency and financial performance and find that high eco-efficiency portfolios outperformed low eco-efficiency portfolios during the period 1995 to 2003. Klassen and Mclaughlin (1996) find significantly positive abnormal returns after a firm receives environmental performance awards, whereas they find significantly negative returns after an environmental crisis. Karpoff, Lott and Wehrly (2005) argue that companies that violated environmental regulations would suffer statistically significant losses in share values.

Social performance

The majority of the previous empirical research on CSR has investigated the relationship between CSP and CFP (e.g., Waddock and Graves, 1997; McWilliams and Siegel, 2000; Barnett and Salomon, 2012). For instance, Hillman and Keim (2001) identify positive relationships, and Brammer, Brooks and Pavelin (2006) find negative results; however, Bauer, Koedijk and Otten (2005) and Renneboog, Horst and Zhang (2008) argue that CSP and CFP are unconnected. Moreover, meta-analysis studies of the comprehensive literature on CSR suggest that CSP and CFP maintain a positive but weak relationship with each other (e.g., Orlitzky, Schmidt and Rynes, 2003; Margolis, Elfenbein and Walsh, 2007; Wood, 2010). In short, existing evidence is still inconclusive. The results have been ambiguous partly because the different measures and types of CSP present either a single dimension or multiple dimensions and partly because various data range, location, variables, and methods give different results.

Corporate governance

The previous research has explored various aspects of corporate governance. Gompers, Ishii and Metrick (2003) provide a proxy for the level of shareholder rights of 1,500 firms and find that strong shareholder rights portfolios significantly outperformed weak shareholder rights portfolios by 8.5% annually. This study suggests that stronger

shareholder rights benefit the firm on shareholder value, profits, sales, capital expenditures, and acquisition activities. By providing empirical evidence of the impact of corporate governance characteristics and corporate ownership concentrations on the financial performance of Chinese companies, Shan and McIver (2011) state that the relationship between the ratio of independent directors and financial performance is significantly positive in larger companies. Spellman and Watson (2009) find a positive and statistically significant relationship among governance metrics, international ratings, and future shareholder returns.

Other dimensions

The boundaries of different dimensions of CSR are still blurred. A number of authors have considered other indicators to measure CSR. For instance, Edmans (2011) analyses the impact of employee satisfaction on long-run stock returns by building a portfolio of the '100 best companies to work for in America'. The study reports that companies with higher employee satisfactions have performed better than the overall market by 3.5% from 1984 to 2009, after controlling for common risk factors and firm characteristics. I propose that all different dimensions, such as environmental activities and governance activities, can be included in the social dimension.

2.3.2 Empirical analysis of CSiR and CFP

CSiR is a fairly new subject; therefore, literature on CSiR-CFP relationship lacks both breadth and accuracy in three main ways. Firstly, as mentioned earlier, CSR literature has focused primarily on CSR and CFP in either multiple or single dimensions. CSR and CSiR share many similar qualities; therefore, CSiR should also be measured in multiple dimensions. Guenster et al. (2011: 684) point out that 'corporate social (environmental) responsibility is a broad construct that can only be assessed with multidimensional indicators'. In addition, Lee and Faff (2009: 214) argue that 'single proxy measures (e.g., environmental performance) present nontrivial limitations with regard to their interpretation and reliability'. Although an increasing number of studies have examined the relationship between CSiR and CFP, only a few studies have investigated the relationship in multiple dimensions – which is essential for CSiR studies. Prior literature lacks a comprehensive understanding of CSiR mainly because of the unavailability of suitable international data and the complex nature of CSiR.

Secondly, some studies have employed the event study method to investigate the relationship between ESG issues and firm value in the short term. This has been done because ESG issues indicated unethical or irresponsible behaviour, which would influence the short-term or long-term performance of companies. However, the event study method of analysis has some limitations. For instance, McWilliams and Siegel (1997: 626) point out that event studies paid ‘inadequate attention’ to ‘theoretical and research design issues’. Many studies in the field of CSR have considered long-term effects of CSR activities, whereas the same has rarely been done for CSiR research.

Thirdly, most of the previous research on the relations of CSiR and CFP have focused only on the developed markets (e.g., Frooman, 1997; Oikonomou, Brooks and Pavelin, 2014b; Kruger, 2015) and corporate illegality (Frooman, 1997). In a meta study, Frooman (1997) analyses 27 event studies that measured the stock market’s reaction to incidences of socially irresponsible and illicit behaviour and find that companies engaged in socially irresponsible and illicit behaviour have a significantly negative impact on the shareholder value.

Although CSiR-related literature is limited, studies on the individual dimensions of CSiR differ in period, region, data, methodology, and final results (See Appendix 2B). Detailed research findings on individual dimensions are given in the following sub-sections.

Environmental performance

Researchers have observed an inverse relationship between unfavourable environmental news and financial performance is mainly negative. Hamilton (1995) investigates the impact of pollution data on financial performance and finds that shareholders experienced significant negative abnormal returns after the first release of pollution figures. Konar and Cohen (1997) find stock prices of firms declined on the day of the public announcement of company emissions reports from the Toxic Release Inventory (TRI). Lanoie, Laplante and Roy (1998) indicate that firms producing high levels of pollution are more adversely affected than firms producing less pollution. By conducting an event study, Gupta and Goldar (2005) reveal that after the release of data on environment unfriendly behaviour, firms experience negative abnormal returns of up to 30%. After examining 478 environmental violations by

publicly traded companies from 1980 through 2000, Karpoff, Lott and Wehrly (2005) find that firms that violated environmental regulations suffer statistically significant losses in share values.

Several other studies have shown a different result on the environmental performance and CFP. For instance, Colwell, Noseworthy and Alexeev (2010) examine 10 oil and gas companies from the 2006 Fortune 500 list to determine whether a firm's market value influences the effect of negative environmental events on the firm's abnormal returns. The study places the ten companies into two groups: higher market capitalization group and lower market capitalization group. The results show that not all negative environmental behaviour results in decreased shareholder value. However, there are two limitations of this study. Firstly, this study considers only a small number of companies in a single industry; therefore, the results may not be strong enough to represent the whole industry. Secondly, no major differences are found between the market capitalization of the top five and bottom five companies in the Fortune 500 rankings.

More recently, Flammer (2013) investigates the impact of news related to both environmentally responsible and irresponsible corporate behaviours on the shareholder value. This study uses Factiva, one of the major newspaper databases, to collect *The Wall Street Journal* (WSJ) environmental news releases for all US public companies during the period from 1980 through 2009. The findings show that eco-friendly environment news about corporations leads to a significant increase in stock prices whereas news on irresponsible use of the environment faces a significant decrease in share price. The author also argues that external pressure to become green plays a significant role in how markets react to environmental news. An increase in external pressure increases the adverse effects that news about environmentally irresponsible corporations has on share prices.

Social performance

The existing literature has mainly examined the relationship between negative social performance and CFP in the short term; the results are mixed but mainly show negative connections. Kruger (2015) applies short-run event study method to examine the financial performance of event windows of 11 days (5 days before the event and 5 days

after the event) and 21 days (10 days before the event and 10 days after the event) based on an event database that provided newsletters related to negative CSR activities in the original KLD database. The results show that negative CSR news strongly and negatively impacts shareholder value; this impact is more pronounced in the communities and the environmental dimensions of CSR. However, Kruger's study provides evidence only about how investors responded to negative CSR information in the short term.

In a similar study, Groening and Kanuri (2013) also apply the short-term event study method to measure investor reactions to both positive and negative firm-specific incidents in the KLD dataset. The results of the two-day window reveal that only 12% of the CSR-related corporate actions have significant short-term investor reactions, and 52.1% of the stock returns are congruent. The study notes that investing in CSR is not always beneficial, and engaging in CSiR is not always detrimental. Although both Groening and Kanuri (2013) and Kruger (2015) use the same database and measure abnormal returns in a slightly different time window, their results are completely different. The time horizon of the event study is a key factor to determine results.

On a different note, Oikonomou, Brooks and Pavelin (2014b) investigate a mixed picture of positive and negative corporate social behaviours and attempt to draw fine distinctions between CSR and CSiR. This study provides a strong evidentiary foundation that corporations with a uniformly positive or uniformly negative social performance performed better than companies with a mixed image. From a research design perspective, this study provides inspiration for subsequent studies in which CSR and CSiR are treated separately.

Corporate governance

Drawing on CSR and the reputation theory, Janney and Gove (2011) investigates the financial impact of the involvement of firms in the US stock options backdating fraud cases. They show that the firms with better CSR reputation can moderate revelations of scandals. Markets react significantly negatively to stock options backdating scandals; however, firms with good reputations for CSR are partially benefited from scandal revelations. This does not mean that firms should constantly perform CSR

initiatives to stay out of trouble; instead, CSR activities can make a scandal look like an aberration because of the firm's identity and reputation.

By studying 143 enforcement actions that target publicly traded companies for foreign bribery from 1978 through 2013, Karpoff, Lee and Martin (2014) suggest that companies with fraud charges suffer from large fines and reputational losses. However, companies without comingled fraud charges face large fines, but they do not necessarily lose their reputation, which ensures that their future operations or profitability will remain unaffected. Serafeim (2014) analyses how the detection of bribery has impacted a firm's competitiveness and find that the most significant impact is on employee morale followed by business relations, reputation, and regulatory relations, while the impact on stock prices is less significant. Based on a study of 442 firms in the case of hurricane Katrina in 2005, Muller and Kraussl (2011) find that social irresponsibility has a greater likelihood to cause a decrease in stock prices; charitable donations in response to the disaster do not enhance the value of these companies.

Overall, the above-mentioned studies highlight the need for examining the impact of the multiple dimensions of CSiR on shareholder value in the long term. Considering all the evidence, it seems too early to conclude that CSiR brings negative economic impacts; however, CSiR is most likely to have a more congruent nature than CSR.

Appendix 2A. Overview of empirical studies of CSR

Table 2.1 Overview of empirical studies of CSR

Author(s) (Year)	Sample Period (Region)	Model/Method	Measures of CSR performance	Individual Dimensions								Summary of Main Results	
				E	S	G	C	L	P	V	SV		
Barnett and Salomon (2006)	1972-2000 (US)	Multi-regression model	Social Investment Forum (SIF), Wiesenberger and ICDI		√								The social performance and financial performance has a curvilinear relationship.
Barnett and Salomon (2012)	1998-2006 (US)	Multi-regression model	KLD		√								The relationship between social performance and financial performance is U shaped.
Bauer and Hann (2010)	1995-2006 (US)	Multi-regression model	KLD	√									Environmental concerns lead to higher cost of debt financing and lower credit ratings, and proactive environmental practices result in lower cost of debt.
Bauer, Derwall and Otten (2007)	1994-2003 (Canada)	CAPM & Carhart (1997) four-factor model (CFF) & Conditional performance model	NA	√	√	√							The performance of SRI funds and conventional funds is insignificantly different.
Bauer, Koedijk and Otten (2005)	1990-2001 (German, UK and US)	CFF	Morningstar (US), EIRIS (UK) and Ecoreporter (Germany)	√	√	√							There are no significant differences in risk-adjusted returns between ethical and conventional funds.

Bauer, Otten and Rad (2006)	1992-2001 (Australia)	CFF	Morningstar	√			Ethical funds do not underperform conventional funds
Brammer, Brooks and Pavelin (2006)	2002-2005 (UK)	Multi-regression model & CFF	Ethical Investment Research Service (EIRIS)	√	√	√	The environmental portfolio and community portfolio are negatively related with financial return, however, the employment portfolio generates a positive and non-significant return.
Chen and Wang (2011)	2007-2008 (China)	Multi-regression model	Self-designed Questionnaires	√			Social responsibility activities have significant effects on CFP.
Cheung (2010)	2002-2008 (US)	Event Study	Dow Jones Sustainability World Index	√	√	√	Strong influence of events on stock return and risk.
Chong, her and Philips (2006)	2002-2005 (US)	autoregressive conditional heteroscedasticity (ARCH) model	NA	√			The Vice Fund outperforms both the socially responsible fund and the conventional fund Index, while the socially responsible fund underperforms the index.
Cortez, Silva and Areal (2008)	1996-2007 (European)	CAPM & Conditional performance model	NA	√	√	√	The performance of European socially responsible funds is not significantly different from both conventional and socially responsible benchmarks.
Dasgupta, Laplante and Mamingi (2001)	1990-1994 (Argentina, Chile, Mexico, and Philippines)	Event Study	Environmental news	√			Pollution control or superior environmental performance generate positive financial return. Negative environmental events lead to negative market value.

Derwall et al. (2005)	1995-2003 (US)	CAPM & CFF	Innovest environmental ratings	√							The high eco-efficiency portfolio outperforms low eco-efficiency portfolio.
Edmans (2011)	1984-2009 (US)	CFF	100 best companies to work for in America					√			The portfolio consisting of '100 best companies to work for in America' yields a positive alpha of 3.5%.
Galema et al (2008)	1992-2006 (US)	CFF	KLD	√	√	√	√	√	√		There is no significant relationship between socially responsible criteria and stock returns.
Godfrey, Merrill and Hansen (2009)	1993-2003 (US)	Event Study	Socrates dataset								Participation in institutional CSR activities provides an 'insurance-like' benefit, whereas participation in technical CSR yields no such benefits.
Gompers et al. (2003)	1990-1999 (US)	Fama French (1993) three factor model (FF) & CFF	Self-constructed governance index					√			Strong shareholder rights portfolio significantly outperforms weak shareholder rights portfolio by 8.5% per year.
Gregory and Whittaker (2005)	1989 -2002 (UK)	CFF& Time varying model& Conditional performance model	NA	√	√	√					SRI funds outperform non-SRI funds on time-varying basis.
Gregory, Whittaker and Yan (2010)	1990-2008 (US)	FF & CFF	KLD	√	√	√					There is no significant financial performance difference between high-CSR firms and low-CSR firms.

Gupta and Goldar (2005)	1999-2002 (India)	Event Study	Delhi-based Centre for Science and Environment (CSE)	√			After the news release of environmental-unfriendly behaviour, the firms in India result in negative abnormal returns of up to 30%.
Hill et al. (2006)	1995-2005 (US, Asia, and Europe)	Multi-regression model	Social Investment Forum (SIF)	√	√	√	The European fund outperforms the larger equity market in the short term, but none of these statistics are significant in the medium term. However, both the US and European portfolios outperformed their comparison markets in the long term.
Hoepner, Yu and Ferguson (2010)	2005-2009 (16 global countries)	CFF & Multi-regression model	Innovest Strategic Value Advisors		√		CSP-CFP relation is heterogeneity across industries. Five sectors of the ten sectors clearly display an at best neutral relationship between CSP and CFP, while the health care, industrials and consumer discretionary sector display a significantly positive relationship.
Hong and Kacperczyk (2009)	1965-2006 (US)	FF & CFF	CDA Spectrum Database		√		Sin stocks significantly outperform their counterpart.
Kato and Long (2006)	1998-2002 (China)	Multi-regression model	Accounting Research Database (CSMAR)			√	Increase in shareholder value results in increase in executive compensation.

Kempf and Osthoff (2007)	1992-2004 (US)	CFF	KLD	√	√	√	√	√	Long-short strategy that buys high socially responsible rating stocks and sells low socially responsible stocks can yield a positive and statistically significant return of 8.7% per year.
Kim and Statman (2011)	1992-2000 (US)	Multi-regression model	KLD	√					The relationship between corporate environmental responsibility and financial performance is positive.
Klassen, and McLaughlin (1996)	1985-1991 (US)	Linear regression model	NEXIS financial database	√					Strong environmental performance generates significantly positive returns while weak environmental performance generates significantly negative returns.
Kruger (2015)	2001-2007 (Global)	Event Study	KLD	√	√	√	√	√	Negative social responsibility incidents generate significantly negative abnormal returns. In contrast, positive incidents do not have significant connection of shareholder value.
Lean and Chang (2011)	2005-2009 (Taiwan)	Stochastic dominance (SD) approach	'CSR Award' list in Taiwan's commercial magazine, and the 'Global View Monthly'		√				CSR firms do not outperform non-CSR firms due to the investors in Taiwan are not care much about the CSR activities of companies.
Michael Schröder (2010)	2000-2002 (US, Germany and Switzerland)	Multi-regression model	Domini 400 and Social, Calvin, Naturaktien Index	√	√				Most of the German, Swiss and US SRI investment funds do not significantly underperform their benchmarks.

Orlitzky et al. (2003)	1972-1997 (Global)	Meta-analysis	NA	√			Based on the meta-analysis result of 52 studies, this research reveals that the relationship between CSR and CFP is positive.
Russo and Fouts (1997)	1991-1992 (US)	Multi-regression model	Franklin Research and Development Corporation	√			Environmental rating has a statistically significant positive influence on the firm's return on assets
Salaber (2007)	1975-2006 (European)	CAPM & FF	2000 CIA world fact book	√	√	√	Sin stocks outperform conventional stocks in protestant countries, higher litigation risk countries and high excise taxation countries.
Shan and McIver (2011)	2001-2005 (China)	Multi-regression model	China's Shanghai SSE180 and Shenzhen SSE100 Index			√	The relationship between the ratio of independent directors and financial performance is significantly positive in larger companies.
Spellman and Watson (2009)	2003-2008 (US)	Multi-regression model	Governance Metrics International (GMI)			√	There is a positive and statistically significant relationship between governance metrics international ratings and future shareholder returns.
Statman (2006)	1990-2004 (US)	Multi-regression model	Domini 400 Social Index, the Calvert Social Index, the Citizens Index, and the Dow Jones Sustainability Index			√	The returns of the four socially responsible indexes are higher than the S&P 500 index consisting of conventional companies.

Statman Glushkov (2009)	1992-2007 (US)	CAPM & FF & CFF	KLD	√	√	√	√	√	√	The portfolio of high social responsibility ratings has performed better than conventional portfolios.
Velde et al. (2005)	2000-2003 (European)	FF	Vigeo corporate social responsibility scores	√	√	√	√	√		The high sustainability-rated portfolios outperform low sustainability-rated portfolios, but not statistically significant.
Vijfvinkel, Bouman and Hessels (2011)	2009 (Netherlands and China)	Binary logistic regression model	Data collected from questionnaires	√						The relationship between environmental sustainability and firm performance is significantly positive.
Waddock and Graves (1997)	1989-1991 (US)	Multi-regression model	KLD		√					Corporate social performance is positively connected with CFP.
Wang, Qiu and Kong (2011)	2007 (China)	Event Study	Southern Weekend (newspaper)		√					Investors' behaviour is not influenced by firms' CSR performance before the incident but are significantly influenced by firms' CSR performance after the incident.
Xu and Jiang (2011)	2001-2010 (China)	Event Study	Annual reports		√					CSR behaviour can reduce losses if companies engaged in negative activities.
Xu and Wang (1997)	1993-1995 (China)	Multi-regression model	Annual reports			√				The relationship between ownership concentration and profitability is positive and significant.

Zheng (2011)	2008-2010 (China)	CAPM	Investment Strategies of Single fund (AEGON- INDUSTRIAL SRI)	√	√	√	The SRI fund named AEGON- INDUSTRIAL SRI outperforms conventional funds.
Ziegler, Schröder and Rennings (2007)	1996-2001 (European)	CAPM and multi- regression model	Swiss bank Sarasin & Cie	√	√		Environmental performance has a significantly positive influence on CFP. However, social performance impact significantly negative on CFP.

Notes: 'E'= Environment; 'S'= Social; 'G'= Government; 'C'= Community relations; 'L'= Employee relations; 'P'= Product portfolio related risks; 'V'= Violation of codes; 'SV'= Supply chain; 'NA'= Not available; 'FF' = Fama French (1993) three factor model; 'CFF' = Carhart (1997) four-factor model. If the individual dimensions' columns are empty, it means that there are no specific categories of CSR identified in the study.

Appendix 2B. Overview of empirical studies of CSiR

Table 2.2 Overview of empirical studies of CSiR

Author(s) (Year)	Sample Period (Region)	Model/ Method	Measures of CSiR performance	Individual Dimensions								Summary of Main Results	
				E	S	G	C	L	P	V	SV		
Areal, Cortez and Silva (2010)	1993-2009 (US)	CAPM & CFF	Social Investment Forum										The funds employ ‘irresponsible’ criteria outperform or underperform in low or high volatility regimes.
Baucus and Baucus (1997)	74 convicted firms in the Fortune 300 during 1974 to 1983 (US)	multi-regression model	Baucus and Near’s (1991) database		√								This paper examines the longer- term financial consequences of corporate illegal activity and finds that firms suffer lower accounting returns and slower sales growth.
Flammer (2013)	1980 to 2009 (US)	Event study	Factiva		√								This paper investigates the impact of both responsible environment news and irresponsible environment news on shareholder value and find the former experiences a significant stock price increase while the latter faces a significant decrease in share price.

Filbeck and Gorman (2004)	2,441 events of approximately 300 of the S&P 500 firms during 1999 and 2001 (US)	Event study	Investor Responsibility Research Centre's News and Bibliography database	√	This study reports that companies' financial returns are positively related to environmental friendly news. Announcements of environmental awards tend to produce the most consistent positive abnormal returns, regardless of the type of media outlet.
Frooman (1997)	Sample of studies published from 1981 to 1994 (multi sample)	Meta-analysis	Existing literature	√	This paper meta-analyses 27 event studies that have investigated the influence of irresponsible events on stock returns and finds that socially irresponsible and illicit behaviour have adverse effect on shareholder wealth.
Karpoff, Lee and Martin (2014)	143 enforcement actions that target publicly traded companies for foreign bribery from 1978 through May 2013 (US)	Multi regressions	CCH Wolters Kluwer Securities (Federal) Library and the PACER database	√	The results of this study suggest that companies with fraud charges suffer from large fines and reputational losses while companies without comingled fraud charges face large fines but not necessarily lose reputation that will impede future operations or profitability.
Karpoff, Lott and Wehrly (2005)	478 environmental violations by publicly traded companies from 1980 through 2000 (US)	Event Study	The Wall Street Journal and Factiva database	√	This paper finds that firms violated environmental regulations results in statistically significant share value losses.

Kotchen and Moon (2012)	3,100 companies from the KLD data between 1991 to 2005 (US)	OLS regression	KLD CSR concerns	√	√	√	√	√	This study investigates whether companies engage in CSR in order to provide insurance protection for CSiR and finds that heterogeneity existed among industries, where the effect is more significant in industries with greater public scrutiny.
Kruger (2015)	2,116 events concerning 745 different firms between 2001 and 2007 (US)	Event Study	Event database which provide newsletters related to negative CSR activities in the original KLD database	√	√	√	√	√	Based on event windows of 11 days and 21 days, this study finds that negative CSR events have negative impacts on shareholder value.
Lee, Oh and Kim (2013)	222 firms from the Fortune 500 list with both KLD data and Twitter activities (US)	Probit regression	KLD CSR concerns and Twitter	√	√	√	√	√	This paper examines the effect of CSR credentials on the effectiveness of social media as a stakeholder relationship management platform and the results reveal that higher CSR ratings can help firms to establish a better media presence.
Oikonomou, Brooks and Pavelin (2014b)	769 different firms from the S& P index cover the years between 1991 and 2008 (US)	Portfolio approach	KLD CSR concerns	√	√	√	√	√	This study suggests that firms with a uniformly picture of either positive or negative on CSR performance perform better than companies with a mixed picture of positive and negative behaviour on CSR.

Serafeim (2014)	6,806 responses from approximately 3,000 and 4,000 firms in 2009 and 2011, respectively and select 244 responses of bribery-only firms. (multi countries)	Ordered logistic regressions	Survey data			√						This paper analyses how detection of bribery has impacted a firm's competitiveness and find that the order of the most significant impact is on employee morale, business relations, reputation and regulatory relations while the impact on stock price is less significant.
Strike, Gao and Bansal (2006)	222 firms for which there are KLD data between 1993 and 2003 (US)	GLS regression analyses	KLD database and Compustat database	√	√	√	√	√				This study finds that firms can act socially responsible and socially irresponsible at the same time, and the irresponsible behaviour of firms are caused by increased complexity of international diversification.
Wagner, Bicen and Hall (2008)	Different means of data collection (paper-based survey of students and online survey of non-students (US)	Confirmatory factor analysis (CFA) (Finn and Kayande, 2004)	Survey data									This paper provides a comprehensive conceptualization and cross-validated scale of consumers' perception of CSiR in retailing.
Muller and Kraussl (2011)	442 firms from the Fortune 500 list in the case of Hurrigan Katrina in 2005 (US)	Standard event study methodology, OLS and logistic regression	KLD CSR concerns	√	√	√	√	√				This study finds that social irresponsibility has a greater likelihood to cause stock prices decrease and charitable donations in response to the disaster do not provide value-enhancing value to those companies.

Notes: 'E'= Environment; 'S'= Social; 'G'= Government; 'C'= Community relations; 'L'= Employee relations; 'P'= Product portfolio related risks; 'V'= Violation of codes; 'SV'= Supply chain; 'NA'= Not available; 'FF' = Fama French (1993) three factor model; 'CFF' = Carhart (1997) four-factor model. If the individual dimensions' columns are empty, it means that there are no specific categories of CSiR identified in the study.

3 Data and Measurement

3.1 Introduction

A comprehensive and reliable data source is the foundation of a reliable empirical research. As mentioned earlier, CSiR is a complex and comprehensive concept, which has made it difficult to measure it in quantitative terms. It is similar to the CSR database, which heavily relies on CSR reports and website information of companies. Most of them are qualitative information, and it requires robust methodology and human resources to transfer to quantifiable measures. The distinguishable differences between CSR and CSiR are that the latter is often measured by media coverage. The irresponsible behaviour of companies is increasingly exposed by the media, which is becoming the main source for measuring CSiR. Compared to CSR reports published by the companies themselves, news outlets and similar media serve as the third party and provide relatively objective information.

One similarity between CSiR and CSR is that both are to be measured in multiple dimensions. In fact, there are three different methods to measure CSiR or collect CSiR data. The first type is index data, a notable example of this is the MSCI acquired Kinder, Lydenberg, and Domini (KLD) data. KLD is the most popular data to measure CSR; this is obvious from the studies that have used this data (e.g., Waddock and Graves, 1997; Godfrey, Merrill and Hansen, 2009; Barnett and Salomon, 2012; Jo and Na, 2012; Oikonomou, Brooks and Pavelin, 2014b). KLD is commonly used for CSR studies. It is composed of two main measures: strength and concerns; however, the latter has been used to measure CSiR in a limited number of studies (e.g., Wagner, Bicen and Hall, 2008; Muller and Kraussl, 2011; Kotchen and Moon, 2012; Lee, Oh and Kim, 2013; Oikonomou, Brooks and Pavelin, 2014b). To avoid misspecification, Mattingly and Berman (2006: 38) highlight that ‘researchers should ensure that social strengths and weaknesses remain independent (are not combined) in future research unless their convergence can be demonstrated empirically’.

The second type of data is news data on different resources and subjects. Studies have tried to download data from popular news agencies (such as the *Financial Times* and *The Wall Street Journal*) and some merged news databases (such as Factiva,

LexisNexis, and ProQuest). There is nothing wrong in using news data; however, manually downloading and categorising data can only capture a narrow aspect of CSiR because of limited time and resources. Each study in CSiR literature has investigated a single aspect of CSiR, such as product recalls, chemical pollution, bribery, and tax evasions.

The third method, which is more appropriate, involves collecting data from a third party (usually an independent company) that makes the comprehensive data available to customers. The most reliable and comprehensive database related to irresponsible corporate behaviour on the market is from RepRisk, which provides a unique dataset of negative media coverage from 2007 to 2012. At the time of conducting the research, RepRisk had tracked 27 ESG issues of over 20,000 companies daily worldwide, and the number of companies in the database had been growing steadily.

The purpose of this chapter is therefore fourfold: firstly, to introduce the details of the RepRisk database and its construction method; secondly, to describe the raw data cleaning and organising process and to provide descriptive analysis for the raw data; thirdly, to pinpoint the advantages and limitations of the data; and finally, to describe the suitable measurement for RepRisk data, namely, the calendar-time portfolio approach used in this thesis.

3.2 The need for a comprehensive database on CSiR

3.2.1 Introduction of RepRisk database

RepRisk claims to be the most comprehensive database on ESG risks, which interprets as CSiR in this thesis. According to RepRisk, ESG risks can also mean compliance, reputational, and financial risks. It provides daily negative media coverage on ESG risks for both listed and non-listed companies worldwide. The uniqueness of this database is that it covers media coverage in 15 languages and is managed by highly-trained analyst team members – something that is hardly achievable by an individual researcher. In addition, the media coverage on ESG risks is reported in both the local and international media.

By the time I received the datasets from RepRisk, it had provided datasets from January 2007 to July 2012. Until June 2016, it has provided global data for 73,329

companies, 18,481 projects, 13,043 non-governmental organisations (NGOs), 9,507 government bodies, and 34 sectors, and the number is still growing on a daily basis.

RepRisk covers 27 specific research scopes, mainly in the ESG category. In a later stage, RepRisk adds the research scope ‘tax optimisation’ into the governance category; therefore, it contains 28 types of research scopes. Table 3.1 shows the seven scopes of RepRisk data: environment, corporate governance, community relations, employee relations, product, violation of codes, and supply chain. In this thesis, I have combined the community relations and employee relations scopes into one, that is, the social scope. However, the empirical chapters use different scopes of RepRisk data to suit research design. For instance, Chapter 6 combines both Bloomberg ESG disclosure and RepRisk data. Bloomberg ESG disclosures data covers only the ESG dimensions; therefore, RepRisk data have to cover the same dimensions. All the issues listed by RepRisk are evaluated based on international standards, such as the Universal Declaration of Human Rights, the Equator Principles, and the UN Global Compact Principle.²

RepRisk follows the five steps of a meticulous research process. The first step is screening. It uses a proprietary IT tool to screen a wide range of media sources on a daily basis. The second step is identification and filtering, which requires highly-trained analysts to identify and filter the screened data according to RepRisk’s research framework. The third step is analysis, which is the main process that requires the analyst to summarise and score the media report based on the proprietary process. In the next step, senior level analysts provide a thorough review of the previous step’s results to ensure the quality of the data. The final step uses proprietary risk metrics to quantify the risks, which is necessary for providing a systematic view of the data.

² A full list of international standards used in RepRisk database can be found at: www.reprisk.com/repriskscope/.

Table 3.1 CSiR dimensions in the RepRisk database

Dimensions	Issues
Environmental footprint	Global pollution and climate change
	Local pollution
	Impacts on ecosystems and landscapes
	Overuse and wasting of resources
	Waste issues
Corporate governance	Animal mistreatment
	Corruption, bribery, extortion, money laundering
	Executive compensation
	Misleading communication
	Fraud
Community relations	Tax evasion
	Anti-competitive practices
	Human rights abuses, corporate complicity
	Impacts on communities
Employee relations	Local participation issues
	Social discrimination
	Forced labour
	Child labour
	Freedom of association and collect bargaining
Product	Discrimination in employment
	Health and safety issues
Violation of codes	Poor employment conditions
	Controversial products and services
Supply chain	Product-related health and environmental issues
	Violation of international standards
	Violation of national legislation
	Supply chain (environmental, social and legal Issues)

Note: The first column shows the categories of research scopes and the second column details the subcategories in each main category. All principles of the UN Global Compact are addressed.

The RepRisk datasets consist of two main parts: The RepRisk news data and the RepRisk Index (RRI). The news data are derived from the news information provided by independent third parties including international and local media, government sites, NGOs, newsletters, social media, and blogs. In this thesis, I have used only news data reported by news agencies. Once companies involved in negative issues are exposed, RepRisk records the date, company information, source name, issue type, novelty rating, severity rating, and source rating in the database. Incidents are entered into the database according to the date displayed on the news source, rather than the date when the incidents occurred. This is inevitable because of the lag effect of news reporting.

The novelty, severity, and source ratings in this database follow stringent standards. Novelty rating describes how new and salient the news presented on a given topic is and whether the company, project, or government has been criticised earlier on this topic. RepRisk uses '1' to indicate a company has been criticised on this story before, and uses '2' to indicate a new accusation for one of the companies linked to the database. Severity rating in RepRisk describes the graveness and harshness of an incident or an accusation regarding the violation of international standards. It reflects, firstly, the type of an incident or accusation; secondly, it reflects its extent, and thirdly its consequences for the environment or people. RepRisk uses the numbers '1', '2', and '3' to specify low severity, medium severity, and high severity, respectively. In addition, source rating is a measure of the influence of the source. A large source rating indicates that the source is read by key stakeholders and decision-makers and/or by a large number of individuals. The reach thus correlates with the source's importance in the industry and with the global importance of its location. RepRisk uses '1', '2', and '3' to indicate that the news is reported by the local media, the national-level media, and the international sources, respectively.

Based on the news data, RepRisk builds the rating index with quantitative measurement to quantify a company's exposure to overall reputation risk or ESG risks as claimed by RepRisk. The index does not measure reputation, but it is an indicator of the reputation risk related to ESG issues. It identifies controversial companies covered in negative news and allows comparison to peers. The RepRisk Index is calculated on a monthly basis, which is based on the frequency and timing of the news information and the influence of novelty rating, severity rating, and source rating. The

score ranges from 0 to 100 – a lower score indicates that company has fewer risks. The index also has a score of ‘-1’ for companies not exposed to ESG risks in a specific month.³

The index value indicates the level of ESG-related risks associated with a company and is evaluated by a strict rule-based methodology. RepRisk ensures the creation of an objective rating by only entering news once into the database except in the condition that the nature of the news changes, for example, when a behaviour involves more risks in ESG-related issues or gains higher media exposure. Companies that have been criticised for an issue are less sensitive to new criticisms on the same issue. If no new issues are recorded, the index value of a company will decrease over time.

3.2.2 Descriptive statistics

After I received raw data from RepRisk, I firstly looked at the RepRisk Index data, which are systematic data constructed based on the news data. Table 3.2 shows the summary of the RepRisk Index database. The first column lists the country or region. The second column displays the number of companies covered in each country or region. The third column contains companies with ISIN codes and the fourth columns contain companies without ISIN codes. The inclusion of ISIN codes indicates that those companies are listed in the stock market. Companies without ISIN codes indicate that the companies either missing ISIN codes or they are private companies. I sort the table by the third column because this thesis only examines listed companies. The RepRisk Index database has included 47,635 companies. However, not every company in the index database has a history of negative media coverage. Companies having no negative media coverage also existed in this database. RepRisk uses the score ‘-1’ for each month that companies have no negative media coverage in the index database. However, the RepRisk news data only covers companies with negative media coverage history.

³ See a RepRisk company report sample:
<https://platform.reprisk.com/downloads/Sample%20Company%20Report%20-%20RepRisk%20website.pdf>.

Table 3.2 Summary of RepRisk Index (RRI) data

Country or Region	Companies	Companies with ISIN	Companies without ISIN
United States of America	12751	9501	3250
Japan	4015	3846	169
Canada	3775	3414	361
India	4050	3394	656
China	3034	1872	1162
United Kingdom	2591	1839	752
Australia	2064	1788	276
Korea	1983	1780	203
Taiwan	1549	1487	62
Romania	1219	1184	35
Germany	1621	1181	440
Malaysia	1221	958	263
France	1106	899	207
Israel	865	696	169
Singapore	769	646	123
Bosnia and Herzegovina	888	631	257
Bermuda Islands (UK)	615	598	17
Cayman Islands	549	542	7
Thailand	639	529	110
Pakistan	569	520	49
Sweden	587	507	80
Vietnam	634	497	137
Poland	479	445	34
Hong Kong	502	437	65
Russian Federation	788	368	420
Switzerland	601	355	246
Brazil	753	352	401
South Africa	486	350	136
Indonesia	824	344	480
Turkey	417	314	103
Italy	460	309	151
Greece	323	299	24
Egypt	303	278	25
Norway	373	249	124
Sri Lanka	237	230	7
Croatia	245	228	17
Philippines	379	222	157
Jordan	227	214	13
Denmark	268	211	57
Netherlands	341	204	137
Bulgaria	219	195	24
Chile	307	192	115
Kuwait	196	177	19
Belgium	239	171	68
Nigeria	290	165	125
Spain	544	153	391
Cyprus	153	145	8

Country or Region	Companies	Companies with ISIN	Companies without ISIN
New Zealand	181	135	46
Saudi Arabia	160	135	25
Finland	165	131	34
Oman	121	119	2
Mexico	287	117	170
Austria	178	116	62
Peru	195	103	92
Ireland	138	94	44
Guernsey	95	92	3
United Arab Emirates	167	87	80
Macedonia	84	82	2
Ukraine	131	81	50
Mauritius	94	78	16
Argentina	198	73	125
Morocco	93	73	20
Luxembourg	95	72	23
Virgin Islands	86	70	16
Jersey (UK)	64	64	0
Zimbabwe	105	63	42
Isle of Man (UK)	59	59	0
Portugal	91	57	34
Kenya	89	54	35
Slovenia	59	52	7
Venezuela	78	50	28
Slovakia	70	49	21
Tunisia	56	46	10
Qatar	51	44	7
Colombia	152	42	110
Hungary	60	40	20
Lithuania	47	36	11
Bahrain	44	33	11
Jamaica	41	32	9
Latvia	37	29	8
Marshall Islands	27	27	0
Côte d'Ivoire	42	25	17
Czech Republic	52	21	31
Ghana	49	20	29
Estonia	27	17	10
Kazakhstan	65	15	50
Trinidad and Tobago	22	15	7
Zambia	41	15	26
Iceland	27	14	13
Botswana	19	13	6
Malta	20	13	7
Lebanon	21	11	10
Bahamas	12	8	4
Panama	44	7	37
Papua New Guinea	27	7	20
Puerto Rico (US)	7	7	0
Barbados	9	6	3

Country or Region	Companies	Companies with ISIN	Companies without ISIN
Curacao (Netherlands)	6	6	0
Belize	8	5	3
Gibraltar (UK)	5	5	0
Namibia	28	5	23
Swaziland	5	5	0
Uganda	53	4	49
Liberia	23	3	20
Liechtenstein	8	3	5
Monaco	4	3	1
Senegal	7	3	4
Serbia	12	3	9
Anguilla (UK)	2	2	0
Bangladesh	142	2	140
Falkland Islands (UK)	2	2	0
Faroe Islands (Denmark)	2	2	0
Greenland (Denmark)	2	2	0
Sudan	29	2	27
Tanzania	52	2	50
Aland Islands (Finland)	1	1	0
Antigua and Barbuda	4	1	3
Benin	9	1	8
Cameroon	39	1	38
Costa Rica	27	1	26
Gabon	8	1	7
Palestinian Territory; Occupied (Israel)	1	1	0
Saint Kitts and Nevis	4	1	3
Seychelles	3	1	2
Sierra Leone	6	1	5
Togo	6	1	5
Afghanistan	8	0	8
Albania	9	0	9
Algeria	15	0	15
Angola	23	0	23
Armenia	26	0	26
Azerbaijan	5	0	5
Belarus	10	0	10
Bhutan	1	0	1
Bolivia	37	0	37
Burkina Faso	2	0	2
Burundi	1	0	1
Cambodia	51	0	51
Chad	1	0	1
Comoros	1	0	1
Congo	94	0	94
Cuba	1	0	1
Djibouti	1	0	1
Dominica	2	0	2
Dominican Republic	33	0	33
Ecuador	44	0	44

Country or Region	Companies	Companies with ISIN	Companies without ISIN
El Salvador	7	0	7
Equatorial Guinea	4	0	4
Eritrea	1	0	1
Ethiopia	13	0	13
Fiji	2	0	2
Gambia	1	0	1
Georgia	5	0	5
Guatemala	35	0	35
Guinea	6	0	6
Guyana	16	0	16
Haiti	1	0	1
Honduras	18	0	18
Iran	80	0	80
Iraq	13	0	13
Kyrgyzstan	5	0	5
Lao People's Democratic Republic	9	0	9
Libyan Arab Jamahiriya	8	0	8
Madagascar	5	0	5
Malawi	10	0	10
Mali	2	0	2
Mauritania	3	0	3
Moldova	3	0	3
Mongolia	17	0	17
Mozambique	12	0	12
Myanmar	52	0	52
Nepal	6	0	6
New Caledonia (France)	1	0	1
Nicaragua	11	0	11
Niger	4	0	4
Paraguay	6	0	6
Rwanda	9	0	9
Saint Lucia	1	0	1
Samoa	2	0	2
San Marino	1	0	1
Sao Tome and Principe	1	0	1
Solomon Islands	2	0	2
Suriname	4	0	4
Syrian Arab Republic	2	0	2
Tajikistan	1	0	1
Timor-Leste	1	0	1
Turkmenistan	1	0	1
Unspecified	10	0	10
Uruguay	24	0	24
Uzbekistan	10	0	10
Vanuatu	2	0	2
Yemen	12	0	12
Total	62432	47635	14797

Notes: This table ranked by the third column 'companies with ISIN'.

Next, Table 3.3 provides summary statistics for RepRisk news data. The first column lists the country or the region. The second column displays the number of news stories for companies covered in each country or region. The third column shows the number of companies with negative news history in the database. The fourth and fifth columns contain companies with ISIN codes and without ISIN codes, respectively. Companies with ISIN codes indicate that companies are listed on the stock market. Companies without ISIN codes suggest that companies are either missing ISIN codes or they are private companies. I sort the table by the fourth column because this thesis only examines listed companies. The RepRisk news database has included 5,363 companies.

Compared to the RepRisk Index database, the number of companies with negative news history is much smaller. There are many reasons for this. Firstly, although RepRisk tries to cover as many companies as possible, there are still time and resource limitations, especially pertaining to countries speaking languages that are not covered by RepRisk. Secondly, it is possible that during the period from late 2006 to 2012, only these companies have been reported with negative news.

Chapter 4 of this thesis investigates the differences in the impact of reputation risk between developed and developing countries. I have used a large sample of worldwide companies covered in the RepRisk Index data. Chapter 5 examines the individual dimensions of CSiR, the news characteristics, investor types, and government pressure. I use RepRisk news data in this chapter and specifically focus on the biggest emerging market in the world: China. Chapter 6 examines the moderating effect of ESG disclosures on the impact of negative media coverage on ESG issues. I also use the RepRisk news data in this chapter. I limit the sample only to the US market for two reasons. Firstly, many studies report that there are country differences in the coverage of CSR reports (e.g., Maignan and Ralston, 2002; Chen and Bouvain, 2008); therefore, it is more appropriate to consider a single country to provide extra reliability and simplify the research process. Secondly, the data matching process requires the sample with the data in both the Bloomberg ESG disclosure database and the RepRisk database. I find that the US market contains the largest sample required in this study.

Table 3.3 Summary of RepRisk news data

Country or region	News ID	Companies with news	Companies with news and ISIN	Companies with news but without ISIN
United States of America	23032	6152	1383	4769
Canada	2928	803	399	404
Japan	1819	562	310	252
United Kingdom	5666	1214	298	916
India	2401	1017	270	747
Australia	1989	652	252	400
China	3168	1567	226	1341
Korea	1545	538	210	328
Germany	2932	595	125	470
Russian Federation	1943	907	112	795
France	2135	393	107	286
Taiwan	476	157	91	66
Switzerland	2196	327	83	244
Brazil	1398	556	77	479
Sweden	622	239	65	174
Hong Kong	458	163	65	98
Cayman Islands	167	79	65	14
South Africa	836	268	62	206
Malaysia	518	240	62	178
Israel	439	238	62	176
Bermuda Islands (UK)	318	79	61	18
Spain	1369	466	57	409
Philippines	633	296	51	245
Thailand	377	150	51	99
Italy	742	233	48	185
Netherlands	1375	215	46	169
Indonesia	1038	426	40	386
Singapore	531	150	39	111
Chile	494	169	34	135
Norway	493	188	33	155
Denmark	314	164	33	131
Nigeria	503	189	32	157
Pakistan	122	99	32	67
Ireland	243	86	32	54
Mexico	446	183	31	152
Finland	393	100	30	70
Belgium	237	89	26	63
Austria	271	101	21	80
Peru	346	143	20	123
Turkey	110	73	16	57
New Zealand	159	82	15	67
Egypt	58	44	15	29
Argentina	328	159	14	145
Portugal	84	55	14	41
Greece	76	48	14	34
Luxembourg	313	41	14	27

Country or region	News ID	Companies with news	Companies with news and ISIN	Companies with news but without ISIN
United Arab Emirates	140	88	12	76
Kenya	90	61	11	50
Colombia	207	102	10	92
Virgin Islands; British	58	40	10	30
Saudi Arabia	61	37	10	27
Poland	60	45	9	36
Jersey (UK)	31	9	9	0
Vietnam	191	141	8	133
Kuwait	47	28	8	20
Kazakhstan	229	78	7	71
Morocco	47	25	7	18
Ukraine	124	112	6	106
Czech Republic	66	44	6	38
Bahrain	36	20	6	14
Zimbabwe	139	63	5	58
Papua New Guinea	111	32	5	27
Sri Lanka	23	20	5	15
Cyprus	18	12	5	7
Lithuania	15	12	5	7
Venezuela	85	32	4	28
Côte d'Ivoire	74	22	4	18
Iceland	39	22	4	18
Jordan	36	19	4	15
Guernsey	8	7	4	3
Romania	62	41	3	38
Panama	80	40	3	37
Slovakia	55	33	3	30
Croatia	31	24	3	21
Trinidad and Tobago	11	9	3	6
Curacao (Netherlands)	32	3	3	0
Isle of Man (UK)	5	3	3	0
Bulgaria	56	37	2	35
Zambia	103	31	2	29
Hungary	53	29	2	27
Liberia	56	25	2	23
Latvia	20	17	2	15
Botswana	24	13	2	11
Qatar	12	9	2	7
Liechtenstein	18	7	2	5
Oman	6	6	2	4
Marshall Islands	6	3	2	1
Bangladesh	164	115	1	114
Uganda	99	60	1	59
Ghana	75	38	1	37
Namibia	41	31	1	30
Sudan	56	25	1	24
Mauritius	28	19	1	18

Country or region	News ID	Companies with news	Companies with news and ISIN	Companies with news but without ISIN
Estonia	14	12	1	11
Serbia	10	9	1	8
Georgia	12	8	1	7
Bosnia and Herzegovina	5	5	1	4
Slovenia	5	5	1	4
Swaziland	6	5	1	4
Togo	6	4	1	3
Macedonia	4	3	1	2
Gibraltar (UK)	1	1	1	0
Myanmar	210	118	0	118
Congo	171	101	0	101
Iran	191	92	0	92
Cambodia	115	74	0	74
Tanzania	82	54	0	54
Ecuador	103	47	0	47
Cameroon	51	43	0	43
Guatemala	94	39	0	39
Belarus	57	36	0	36
Bolivia	59	36	0	36
Costa Rica	46	31	0	31
Armenia	78	30	0	30
Unspecified	29	29	0	29
Angola	73	25	0	25
Lebanon	33	24	0	24
Honduras	45	21	0	21
Mozambique	24	21	0	21
Kyrgyzstan	31	20	0	20
Uruguay	22	19	0	19
Mongolia	17	17	0	17
Nepal	19	16	0	16
Azerbaijan	29	15	0	15
Ethiopia	24	15	0	15
Iraq	17	15	0	15
Malta	16	15	0	15
Paraguay	15	15	0	15
Sierra Leone	26	15	0	15
Syrian Arab Republic	29	15	0	15
Algeria	27	14	0	14
Libyan Arab Jamahiriya	33	14	0	14
Uzbekistan	19	14	0	14
Guyana	31	13	0	13
Afghanistan	21	10	0	10
Nicaragua	24	10	0	10
Dominican Republic	13	9	0	9
Jamaica	15	9	0	9
Lao	19	9	0	9
Albania	10	8	0	8

Country or region	News ID	Companies with news	Companies with news and ISIN	Companies with news but without ISIN
Rwanda	10	8	0	8
El Salvador	13	7	0	7
Guinea	9	7	0	7
Yemen	8	7	0	7
Cuba	6	6	0	6
Gabon	10	6	0	6
Malawi	6	6	0	6
Bahamas	7	5	0	5
Haiti	16	5	0	5
Madagascar	9	5	0	5
Senegal	5	5	0	5
Antigua and Barbuda	15	4	0	4
Benin	4	4	0	4
Equatorial Guinea	5	4	0	4
Mali	4	4	0	4
Monaco	4	4	0	4
Montenegro	5	4	0	4
Suriname	4	4	0	4
Barbados	3	3	0	3
Belize	3	3	0	3
Fiji	3	3	0	3
Niger	13	3	0	3
Seychelles	3	3	0	3
Solomon Islands	4	3	0	3
Burundi	2	2	0	2
Cape Verde	2	2	0	2
Chad	2	2	0	2
Djibouti	2	2	0	2
Gambia	2	2	0	2
Mauritania	2	2	0	2
New Caledonia (France)	5	2	0	2
Samoa	3	2	0	2
Tunisia	3	2	0	2
Virgin Islands (United States)	3	2	0	2
Burkina Faso	1	1	0	1
Central African Republic	1	1	0	1
Dominica	2	1	0	1
Eritrea	2	1	0	1
Grenada	1	1	0	1
Moldova	1	1	0	1
Saint Kitts and Nevis	2	1	0	1
San Marino	1	1	0	1
Sao Tome and Principe	1	1	0	1
South Sudan	1	1	0	1
Tajikistan	5	1	0	1
Timor-Leste	1	1	0	1
Turkmenistan	3	1	0	1
Vanuatu	1	1	0	1
Total	73268	23691	5363	18328

Notes: This table ranked by the fourth column 'companies with news and ISIN'.

3.2.3 Advantages and limitations of the data

The biggest advantage of using the RepRisk database to measure CSiR is the coverage of data. Firstly, it covers a broad range of companies in different sectors and markets as compared to KLD database that only covers US stock markets. Secondly, it offers the measurement of CSiR in multiple dimensions. Most studies can only capture a single aspect of ESG performance and cannot represent the total picture of CSiR. These studies are limited to a single topic, such as product recalls and environmental pollution incidents due to time and resource scarcity of the hand-collected data. Thirdly, as stated by Karpoff et al. (2014), research on misconduct cannot rely on only one or two announcements to avoid misclassified data and misinterpreted results. RepRisk covers news reported in multiple channels including various newspapers and other media outlets.

Many studies use KLD database to measure CSiR, which lacks clarity and coverage, because KLD mixes CSR and CSiR together in the same database. Strike, Gao and Bansal (2006: 860) point out that the limitation of using KLD is that specific items do not work well on corresponding screens and call for a sounder measurement of CSR and CSiR. Moreover, combining the positive and negative indicators in the same research study can hide any ‘countervailing effects’ of these indicators on the dependent variable unless their convergence is demonstrated empirically (Mattingly and Berman, 2006: 38).

In addition, RepRisk provides quantitative measurement based on qualitative media coverage content, which makes empirical research more accessible. The independence of RepRisk adds objectivity to the data management process. Also, by providing both index data and news data, it creates the opportunity to investigate both the aggregated CSiR measurement and separate dimensions.

Databases are rarely perfect. RepRisk databases also have several limitations. Firstly, the data I received covered only the period between 2007 and 2012, which is a relatively short sample period compared to the KLD database. However, the comprehensive coverage of the RepRisk databases can overcome this limitation. Secondly, due to the extensive coverage and sophisticated measures of CSiR, it makes the data cleaning and organising process more time-consuming. For instance, each

piece of news coverage is measured by multiple criteria: severity, novelty, source reach, and so on. Therefore, the news database includes news in different severity and novelty levels and can be reported by different media outlets. In addition, one negative story of a company can be reported by various media sources and at different times and possibly even with follow-up reports. For instance, when the BP oil spill incident first hit the headlines in 2010, many media outlets reported the story; subsequently, there are follow-up stories in the following weeks, months, and even years. In the initial stage, I have cleaned and organised the raw RepRisk database to transform it to analysable datasets (e.g., one of the tasks is to find the ISIN codes for all the companies in the raw dataset). In order to ensure the consistency of the database, the process is not performed separately for each empirical chapter.

Measuring the short-term effect of news coverage is debatable because there are possibly contamination issues during the short-event window if multiple new reports appear for the same company. The US stock market is arguably the most efficient stock market in the world; therefore, Chapter 6 provides a further analysis of ten days of short-term holding periods (although this is not the main purpose of this thesis). In the following section, I provide the details of proper measurement for the specific data used in this thesis.

3.3 The measurement

Studies in both CSR and CSiR have generated mixed results because of using different data sources and methodologies. According to Guenster et al. (2011), generally three different methods are used to analyse the relationship between ESG performance and shareholder value: regression analysis, event studies, and portfolio studies. Regression analysis tests how independent variables explain the dependent variable, which generally requires a large sample to create a large number of observations. The differences between distinctive categories are limited, such as individual dimensions, sectors, and CSiR performance levels. I, therefore, do not use this method in this study.

Event studies explore the direct impacts of CSiR performance on corporate financial performance. As the negative behaviour of companies is commonly measured by news reporting, studies focussing on negative behaviour use the event study methodology to measure how news coverage impacts stock prices in the short term or long term. There

are a number of studies using short-term event studies, which commonly use methods similar to Mackinlay (1997). The most recent example is a study developed by Kruger (2015). Based on an event database, which provides newsletters related to negative CSR activities in the original KLD database, Kruger (2015) examines event windows of 11 days and 21 days and finds that negative CSR events negatively impact the shareholder value.

However, the short-term event study method suffers a few limitations. Firstly, as pointed out by McWilliams and Siegel (1997: 626), there is ‘inadequate attention paid to theoretical and research design issues’ in event studies. Barakat and Terry (2013: 1) prove that cumulative abnormal return (CAR) can result in ‘misleading inferences about market efficiency and post-event behaviour’. Second, news on corporate behaviour is likely to be repeated by follow-up stories and reported by multiple sources of media agents. Studies using short-run event methodologies involve the risk of a contaminated event window because of the difficulty in justifying whether the news is the first reported story on the market. Karpoff et al. (2014) support this argument by comparing the differences between hand-collected data of SEC enforcement cases and data in some popular databases. They find that the initial public announcements of cases are reported much earlier than the date covered in the databases. The study, therefore, suggests that event studies may lead to biases in corporate finance research. Lastly, if some other events, such as companies’ profit announcements or dividend changes, are reported simultaneously as CSR news, the short-term measure of stock prices will not be accurate because of the mixed information reported.

Portfolio studies compare the difference between the risk-adjusted returns of portfolios constructed by similar CSiR characteristics and market benchmark portfolio. Portfolio studies can be divided into short-term portfolio studies and long-term portfolio studies in terms of the time horizon. ESG issues indicate unethical or irresponsible behaviour, which would influence both the short-term and long-term financial performances of companies. Keeping in view the nature of the RepRisk database and the main research purposes, I use long-term portfolio studies method in this thesis. The stakeholder theory suggests that a company’s ability to establish long-term relationships with key stakeholders will lead to superior stakeholder engagement, reduced costs, and improved mutual trust (Eccles, Ioannou and Serafeim, 2014). Measuring accurate

long-run impact of events is likely to be difficult because of the news characteristics, the complexity of impact factors, and environmental conditions. This difficulty triggers an additional challenge for analysing the non-financial information of companies because there is no conclusive evidence that CSiR leads to damaged stock performance.

Researchers carrying out empirical studies have made considerable efforts to evaluate the long-term financial performance. There are two types of long-run portfolio approaches: the event-time portfolio approach and the calendar-time portfolio approach. According to Lyon, Barber and Tsai (1999), the event-time portfolio approach uses traditional event study framework and buy-and-hold abnormal returns calculated using constructed reference portfolios. This approach matches portfolios including event firms with portfolios including firms having similar characteristics such as size, book to market ratio, and momentum. The calendar-time portfolio approach is the most-used methodology, which is originally developed by Jaffe (1974) and Mandelker (1974). The approach assumes investors rebalance the portfolio on a monthly basis with returns that have taken cross-correlation of returns into account. For instance, investors include firms in the portfolio if the firm experienced events in the previous month, and calculate portfolio monthly returns based on equal-weighted or value-weighted method. Then, investors employ the portfolio returns as the dependent variable in the Fama-French based asset pricing models to obtain alpha, which is the intercept of the model to indicate abnormal returns. The advantage of the calendar-time portfolio approach is that it can solve the potential limitations with the event-time portfolio approach such as overlapping returns (Mitchell and Stafford, 2000).

Generally speaking, the portfolio approach applies ESG-related indicators to portfolios under both the idiosyncratic risk and the market risk based on the asset-pricing theory and the portfolio theory (Markowitz, 1952), the common risk factors (Fama and French, 1993), and the momentum factor (Carhart, 1997). According to Lyon, Barber and Tsai (1999), the calendar-time portfolio approach together with the Fama-French three-factor model are well applicable for random samples. Fama (1998) and Mitchell and Stafford (2000) believe that the calendar-time approach has much better statistical

settings than other approaches. Ahern (2009) suggests that the best procedure would be to test the Fama-French three factor model with a sign statistic.

News studies in the asset pricing research field, especially analysing the effect of media coverage on stock price, use the calendar-time portfolio approach (e.g., Hong, Lim and Stein, 2000; Chan, 2003; Tetlock, Saar-Tsechansky and Macskassy, 2008; Fang and Peress, 2009; Hillert, Jacobs and Müller, 2014). This thesis is closely related to the above-mentioned finance studies but is distinct from them, as the stated studies mainly examine the broader media coverage. For example, by constructing rolling portfolios over several holding periods, Chan (2003) investigates monthly returns following public news and compared them with companies with no news and finds that significant differences between the two. I follow Chan (2003) in using the calendar-time portfolio approach, which is also the approach used by some of the most-cited papers by Jegadeesh and Titman (1993) and Fama (1998).

Several studies in CSR-related subjects have also applied the portfolio approach (e.g., Gompers, Ishii and Metrick, 2003; Kempf and Osthoff, 2007; Edmans, 2011; Guenster et al., 2011; Deng, Kang and Low, 2013; Eccles, Ioannou and Serafeim, 2014; Oikonomou, Brooks and Pavelin, 2014b). For instance, Edmans (2011) analyses the impact of employee satisfaction on long-run stock returns by building a portfolio of the '100 best companies to work for in America'. After controlling for common risk factors and firm characteristics, the study shows that companies with higher employee satisfaction have performed better than the overall market by 3.5% from 1984 to 2009. Oikonomou, Brooks and Pavelin (2014b) provide a mixed picture of positive and negative CSP and suggest that firms with a uniformly positive or uniformly negative social performance perform better than companies with a mixed image. In summary, event study is the best way to capture the news coverage of negative ESG risks at the firm level while the portfolio approach is the best method to measure the financial effect of the portfolio at the asset level.

4 Corporate Social Irresponsibility: A Global Perspective

Abstract

This essay links CSiR activities to reputation risk and conducts a large-scale investigation of portfolios holding stocks from CSiR activities. This study analyses risk-adjusted returns of high and low reputation risk portfolios based on a sample of 7,442 companies in 44 countries. The results show that stocks with low reputation risk earn higher returns (annual four-factor alpha of 3.1%) than stocks with high reputation risk after controlling for well-known risk factors. In addition, the gap between high and low reputation risk portfolios are consistent by controlling for countries, sectors, firm characteristics, different weighting methods and the removal of financial sectors. The results also show that there are differences between developed and developing countries, financial and non-financial sectors. Compared to developed countries, the results show wider significant differences in developing countries in terms of abnormal returns between companies exposed to high and low reputation risks. The results also reveal that there are more significant differences in abnormal performances between high and low reputation risk portfolios in non-financial sectors than financial sectors.

Keywords: Corporate social irresponsibility, developed countries, developing countries, reputation risk

4.1 Introduction

Reputation risk is a growing concern for many companies all over the world. Over the past decade, the power of social media has allowed news to spread around the world within minutes and a piece of negative news can have a direct impact on the global perception of a company's image. High-profile incidents, such as BP's oil spill in 2010 and Volkswagen's emissions scandal in 2015, have alerted companies that reputation risk can cause both short-term and long-term damage to public image, incurring the loss of customers' confidence, damaged employee relationships and a reduction in profits and share prices. As CSiR is naturally the opposite of CSR, potential risk issues and events related to CSiR activities are likely to lose trust and support from stakeholders and even impact stakeholder relations in the long term. In this chapter, I take a different angle by linking CSiR to reputation risk since CSiR can be considered as the intangible asset of companies.

Much of the existing literature focuses its attention on the topic of CSR; however, a more thorough understanding of the CSiR across developed and developing contexts is still lacking. Little comparative work has been undertaken in an effort to understand the different expressions and manifestations of CSiR across developed and developing settings. The general unavailability of suitable international data, coupled with the complex nature of social irresponsibility scandals and firm risks, make a full and satisfying exploration of this issue difficult.

Given that the theoretical foundations of CSiR are still somewhat sparse, I believe that the existing CSR theory can serve as an appropriate reference for CSiR. There is an accumulating body of evidence which shows that developing countries differ from developed countries in their approaches to CSR since the state of a country's development tends to require different CSR approaches and interventions (e.g., Jamali and Mirshak, 2007; Kolk and Lenfant, 2010; Moon and Shen, 2010). Therefore, it is necessary to provide a more nuanced analysis of how CSiR manifests itself in different contexts. I believe that the unique insights to be gained from comparing CSiR in developed and developing countries would act as a valuable reference point for scholars interested in both contexts. In order to breach this gap, this study examines the impact of high and low reputation risk on shareholder value with particular focuses

on the differences between developed and developing countries, and between financial and non-financial sectors.

In this essay, I have used a unique dataset from RepRisk to measure reputation risk. A significant amount of data has been collected covering the firm characteristics, sectors and countries from all over the world. RepRisk provides a unique RepRisk Index (RRI) dataset covering the period between January 2007 and July 2012, keeping daily track of a range of 27 ESG issues in over 20,000 companies all over the world. I use the portfolio approach to examine abnormal returns by accounting various common known risk factors. To compare the differences between high reputation risk and low reputation risk companies, I have considered two main samples for portfolio construction. These samples have been drawn from both developed and developing countries, financial and non-financial sectors.

The findings reveal that stocks with low reputation risk earn higher abnormal returns (annual four-factor alpha of 3.1%) than stocks with high reputation risk after controlling for well-known risk factors. In addition, the gaps between high and low reputation risk portfolios are made consistent by controlling for countries, sectors, firm characteristics, different weighting methods and the removal of financial sectors. The results also show the differences between developed and developing countries, financial and non-financial sectors. The findings show that there are more significant differences between companies with high and low reputation risk in developing countries than in developed countries. The differences of financial performance between high and low reputation risk portfolios are bigger in non-financial sectors than in financial sectors.

This study sheds new light on the theory and practice of CSiR in at least three areas. Firstly, compared to prior literature, this study addresses the issue of CSiR from new perspectives. Focussing on the most fundamental aspects of irresponsibility, this study examines the variations in CSiR practice in both developed and developing contexts. Also, it devotes extra attention to the differences in CSiR practice in financial and non-financial sectors. Secondly, this study features an investigation of CSiR activities based on a sample of 7,442 companies from 44 countries. Such large-scale samples are rarely seen in the existing literature on CSiR. Thirdly, this study enriches the current literature by robustly comparing portfolios that display diverse characteristics.

In order to improve the current literature by robustly comparing portfolios that display diverse characteristics, I address this issue by building characteristic-matched portfolios constructed using the same country, sector, and similar size and value.

The remainder of this chapter is structured as follows: Section 2 provides the literature review on the two main types of relationships studied in this chapter: the link between CSiR activities and reputation risk, and the difference of CSiR in the developed countries and developing countries. Section 3 introduces the data source that has been used to measure reputation risk and provides details of the sample selection process. Section 4 contains the details of the methodology employed in this chapter, including both portfolio formation and benchmark measuring. Section 5 presents the results of the descriptive statistics and various comparative analyses, while Section 6 tests the robustness of the methodology. The last section contains the conclusion, and offers suggestions for future research.

4.2 Literature review

This section firstly reviews the relationship between CSiR activities and reputation risk, followed by a discussion of CSiR in developed and developing countries. In addition, this section also outlines the differences of CSiR between financial and non-financial sectors.

4.2.1 The link between CSiR activities and reputation risk

Risk-related CSiR activities – such as environmental pollution, human rights abuses, child labour, and corruption – are directly linked to a company's operational excellence and are likely to impact on the opinions of its stakeholders. Corporate irresponsible activities can potentially lose the trust of and support from stakeholders and may subsequently lead to the loss of license, employees and customers. For instance, it is likely that an event involving product recall or product liability will lead to losing the customer's trust that the company will provide high-quality products and service. Equally, discrimination in recruiting and human resource management is likely to damage employee relationships, and the visible presence of corruption is likely to dispel the stakeholder of his or her belief that a company has a good management structure and sustainable growth prospects.

Corporate reputation in the current world economy appears to depend substantially on a firm's performance in terms of social and environmental responsibility. Reputation can be considered as the perception of trust and feeling from stakeholders on company's value. Reputation can produce tangible benefits: 'premium prices for products, lower costs for capital and labour, improved loyalty from employees, greater latitude in decision making, and a cushion of goodwill when crises hit' (Fombrun, 1996: 57). A firm's CSR initiatives play a major role in sculpting its corporate identity (Cornelissen, Haslam and Balmer, 2007). Indeed, there is a direct relationship between a firm's sense of social responsibility and the strength of its reputation; the more socially irresponsible it is, the worse its reputation will be. This is consistent with Melo and Garrido-Morgado (2012), whose findings regarding the influence of CSR activities on the firm's reputation support this idea. They find that there are five dimensions (employee relations, diversity issues, product issues, community relations, and environmental issues) of CSR that have a significant impact on corporate reputation, and this effect is moderated by the industrial actions of the firm.

The related literature has proved there is a link between reputation and CSR. In fact, it has been argued that reputation is one of the main drivers of corporate social performance (Friedman and Miles, 2001). In order to maintain a good reputation, companies tend to spend more capital and energy on CSR. Wenwu and Xiao (2011) state that CSR has an effect on corporations' reputation, insurance, and moral capital, especially on corporations that have experienced adverse events. The results reveal that corporate social performance has no direct effect on economic performance. Williams and Barrett (2000) find that corporate philanthropy and corporate reputation are positively related. Brammer and Pavelin (2006) point out that corporate social performance, financial performance, market risk, the extent of long-term institutional ownership, and the nature of its business activities are the primary factors that determine a firm's reputation. On the other hand, irresponsible behaviour can be deleterious to a company's reputation. Legitimacy theory suggests that irresponsible behaviour in high profile companies is likely to give rise to legitimacy threats (Bebbington, Larrinaga and Moneva, 2008). Image restoration literature gives weight to the argument that there are various common initiatives, such as apologies in response to public criticism, that can be undertaken by companies in an effort order to mitigate potential damage reputation (Benoit, 1995).

Since both CSiR and reputation risk are viewed as intangible concepts, the extent of the potential risks depends on the characteristics of the events or contexts in question. A high-profile event that is likely to attract the attention of a much wider audience and to influence both key stakeholders and less relevant stakeholders is also likely to cause significant damage. In the event that they break the law or breach international regulations, companies may face lawsuits, fines and even criminal prosecution, all of which may severely damage the profitability and sustainability of a company's financial situation.

4.2.2 CSiR in developed and developing countries

Although a considerable number of previous studies have found that social irresponsibility scandals result in decreased financial return, little attention has been paid to whether there are differences in the impact of CSiR on shareholder value between developed and developing countries. An increasing number of studies have investigated the relationship between CSiR and CFP. For instance, after examining 478 environmental violations by publicly traded companies from 1980 through 2000, Karpoff, Lott and Wehrly (2005) find that firms that violated environmental regulations suffered statistically significant losses in share values. The public disclosure of a company's environmentally irresponsible behaviour has a negative impact on CFP (e.g., Khanna, Quimio and Bojilova, 1998; Gupta and Goldar, 2005; Karpoff, Lott and Wehrly, 2005). Firms involved in bribery face significant losses that average 5.1% of market capitalization, which includes 3.3% of direct costs and 1.0% of reputation losses (Karpoff, Lee and Martin, 2014). Furthermore, using firm-level data from 44 countries in an investigation of the relationship between corruption and firm value, Lee and Ng (2006) find that there is a markedly negative relationship between the two.

There is a certain level of academic curiosity about the influence of determinism on CSR in the developing world and developed world due to the vastly different economic, social and culture conditions. In the investigation of the impact of national-level institutions on firms' corporate social performance, Ioannou and Serafeim (2012) highlight the importance of the influence of systems of nationhood, politics, labour education and culture system on CSP.

As all companies are different in a variety of ways, reputation risk should not be treated in a universal fit. Companies may be involved in various kinds of CSiR incidents, and reputation risk is affected by factors relating to the contextual background of a company, such as company size, industry, financial status, nationality, and culture. For instance, the critical stakeholders who are affected by the public disclosure of the fact that a company is responsible for environmental pollution differs for the banking industry and the chemical industry. Generally speaking, companies in developed countries adhere to more stringent regulations and face more severe punishments when they are discovered to have behaved irresponsibly. Also, it should be noted that companies which repeatedly act in an irresponsible way should be treated as having a higher reputation risk compared to companies that have only been found to be involved in one or two minor incidents.

While conceptions and perceptions of CSR and CSiR should be different, the fact that they can be viewed as two sides of the same coin suggest that the theoretical foundations of both concepts must be similar, given that companies are often found to exhibit both responsible and irresponsible behaviour. The institutional differences that affect CSR suggest that the practice of CSiR in different contexts also requires varying degrees of experience and expertise. Due to the limited availability of CSiR literature, I have taken some inspiration from the comparatively substantial existing body of CSR literature. For instance, recent evidence suggests that the impact of CSR on corporate reputation in developed countries is different from developing countries. In the latter, for example, CSR is more exclusively related to philanthropy and charitable donations (e.g., Jamali and Mirshak, 2007; Visser, 2008; Jamali and Neville, 2011). Besides these conceptual differences, Shehadi et al. (2013) find that product safety, environmental protection, and labour rights are more prevalent issues in the developed world, while poverty alleviation, supporting charities and community projects, and addressing pressing social issues are of more pressing concern in the developing world. Therefore, it is necessary to conduct a more nuanced analysis of how the practice of CSiR differs in developed and developing contexts. Given that the stock market in developed countries are more efficient than developing countries, this study attempts to investigate if in fact companies in developed countries that engage in socially irresponsible behaviour will result in higher financial penalties than companies in developing countries.

4.2.3 CSiR in financial and non-financial sectors

There are three primary reasons for separating financial and non-financial sectors in this study. Firstly, there are differences in CSiR between financial and non-financial sectors. Compared to industrial sectors, financial sectors do not have a particularly negative impact on the environment, and the products provided by financial sectors are relatively non-polluting. Hoepner, Yu and Ferguson (2010) find that the healthcare, consumer discretionary and industrial sectors place a greater value on sustainability performance. A recent study by Enikolopov, Petrova and Stepanov (2014) report that the nature of non-financial assets is different from that of financial assets, especially during the period of the financial crisis. Eccles, Ioannou and Serafeim (2014) exclude financial institutions from their study by suggesting that ESG-related policies are not likely to be applicable or relevant to the financial sectors.

The second reason for separating financial and non-financial sectors in this study is that the financial sectors experienced a dramatic fall in profits during the financial crisis of 2007 to 2009. Lins, Volpin and Wagner (2013) demarcate the time period of the financial crisis as August 2008 to March 2009, which lies within the sample period of this study. Also, financial firms received a large amount of governmental support during the financial crisis. The third reason is that it is common practice in academic research to exclude financial firms from certain samples during empirical tests. Foerster and Sapp (2005) provide an in-depth analysis of how the exclusion of financial firms from empirical tests can influence both the betas and the number of risk factors found to be significant. Since companies in financial sectors are less associated with negative impacts from socially irresponsible behaviour, I would expect that the impact of CSiR risk on companies' financial returns will be less pronounced in financial sectors than non-financial sectors.

4.3 Data and sample selection

4.3.1 Reputation risk data

To measure companies' reputation risk, I obtained data from RepRisk. Chapter 3 provided substantial details of the RepRisk database and outlined the reasons for why it is the most comprehensive and trustworthy source for measuring and analysing CSiR.

Since I use different parts of the RepRisk dataset in the empirical chapters, I will restate the RepRisk data used in this chapter. By daily tracking of 27 ESG issues of companies worldwide, RepRisk provides a unique RepRisk Index (RRI) dataset covering the period between January 2007 and July 2012.⁴ Table 4.1 shows the seven categories that harbour the various issues relating to reputation risk that are considered in this study. These categories are: the environment, corporate governance, community relations, employee relations, product, violation of codes, and the supply chain.⁵

⁴According RepRisk website, the total number of issues considered in the database has increased to 28 types of issues.

⁵ The issues listed by RepRisk are evaluated based on international standards, such as the Universal Declaration of Human Rights, the Equator Principles and the UN Global Compact Principle, etc. A full list of international standards used in the RepRisk evaluation process can be found on the website: www.reprisk.com/repriskscope/.

Table 4.1 CSiR dimensions in the RepRisk database

Dimensions	Issues
Environment	Global pollution and climate change
	Local pollution
	Impacts on ecosystems and landscapes
	Overuse and wasting of resources
	Waste issues
Corporate governance	Animal mistreatment
	Corruption, bribery, extortion, money laundering
	Executive compensation
	Misleading communication
	Fraud
Community relations	Tax evasion
	Anti-competitive practices
	Human rights abuses, corporate complicity
	Impacts on communities
Employee relations	Local participation issues
	Social discrimination
	Forced labour
	Child labour
	Freedom of association and collect bargaining
	Discrimination in employment
Product	Health and safety issues
	Poor employment conditions
Violation of codes	Controversial products and services
	Product-related health and environmental issues
Supply chain	Violation of international standards
	Violation of national legislation
Supply chain	Supply chain (environmental, social, and legal issues)

Note: The first column shows the categories of issues applied in the portfolio and the second column details the issues in the specific category. Please note I do not combine community relationships dimension and employee relations dimension as the social dimension in this study. All principles of the UN Global Compact are addressed.

The RepRisk Index (RRI) dataset is constructed using data relating to the news. This data is derived from information provided by independent third parties, such as international and local media, government websites, NGOs, newsletters, social media, and blogs. When companies behave irresponsibly and are consequently exposed, RepRisk records in their database the date that the information became public, any information relating to the company itself, the name of the source of the information, the type of issue highlighted by the incident, a rating of the novelty, severity, and source of the incident.⁶ It should be noted that there is always bound to be some kind of a delay between the time when issues arise or incidents occur and when they are reported in the news. As such, the incidents in question are entered into the database according to the date shown on the news source, rather than the date on which these incidents occurred.

Based on the news data, RepRisk constructs the rating index using quantitative measurement to gauge a company's overall exposure to reputation risk, or ESG risk as it is termed by RepRisk. Please note that the index does not measure reputation, but is an indicator of reputation risk in relation to ESG issues. It identifies companies whose controversial actions have led to them becoming subject to negative criticism from the media, and in so doing allows one to compare companies with their peers. The RepRisk Index is calculated on a monthly basis, on the basis of the frequency and timing of the media coverage in question, and the influence of the novelty rating, severity rating and source rating on reputation risk. The score ranges from zero to 100, which means that the lower the score, the less the company's reputation is at risk. In cases where the index gives a score of '-1', this signifies that the company has not exposed itself to ESG risks at any point in a given month.⁷

⁶ Novelty rating describes how new and salient the news presented on a given topic is and whether the company, project, or government has been criticised earlier on this topic.

Severity rating in RepRisk describes the graveness and harshness of an incident or an accusation regarding the violation of international standards. It reflects, firstly, the type of an incident or accusation; secondly, it reflects its extent, and thirdly its consequences for the environment or people.

Source rating is a measure of the influence of the source. A large source rating indicates that the source is read by key stakeholders and decision-makers and/or by a large number of individuals.

⁷ See a company report sample provided by RepRisk:
<https://platform.reprisk.com/downloads/Sample%20Company%20Report%20-%20RepRisk%20website.pdf>.

The index value indicates the level of reputation risks posed by ESG issues associated with a company, and is evaluated using a strict rule-based methodology. RepRisk ensures that its ratings remain objective by only entering information relating to the news coverage into the database once, except in the event that the nature of the incident changes. For example, information enters into the database may have needed to be amended if the incident begins to pose new risks through ESG-related issues, or if it receives a much higher degree of media exposure than it has originally. Companies that have already been publicly criticised in relation to a given issue are likely to be less sensitive to further criticism about the same issue. If no new issues are recorded, the index value of a company decreases over time.

4.3.2 Sample selection

As this chapter uses the index data to measure companies' overall reputation risk, the sample consists entirely of companies listed in the RepRisk Rating index database between January 2007 and July 2012. In selecting the companies for the sample, I use the following criteria:

- The company must have an ISIN code available in Datastream, which is necessary for downloading financial data.
- The company must have at least 36 months of return data available in order to address the survivorship bias issue on testing asset pricing models (Brown et al., 1992).
- The company must have market value data available and it must be possible to collect data pertaining to the country and sector to which the company belongs.
- The company's country must be listed in the MSCI All Country World Index.
- As large companies enjoy better media attention, it is important to ensure that the results are not biased by micro-cap stocks' illiquid status and high bid-ask spread, I require that each sample company must have market capitalization of over 140 million dollars in January 2007.

The final sample consists of 7,442 companies, of which 5,484 are from developed countries and 1,957 are from developing countries. As Table 4.2 illustrates, the sample companies are taken from 44 countries worldwide. The second column shows the number of companies that have been taken from each country. The third and the fourth

column show the score calculated by averaging each company's mean reputational score during the sample period for each country. The third column includes a score of '-1' for companies that have not exposed themselves to reputation risks in a given period. The fourth column excludes the score of '-1'. The largest sample of companies is taken from the US, with an average RepRisk score of 3.6879; the second largest samples taken from Japan, with an average RepRisk score of 0.5606. This is concrete evidence that companies in Japan are less exposed themselves to reputation risk than companies in the US. On average, developed countries have a higher RepRisk score during the sample period while developing countries have a lower RepRisk score.

Table 4.2 Descriptive sample statistics across countries

Country	Number of Companies	Average RepRisk Score	
		Including Minus One	Excluding Minus one
<i>Panel A: Developing countries</i>			
United States	2023	3.6879	16.5425
Japan	1313	0.5606	15.3569
United Kingdom	334	5.1907	16.6839
Canada	246	5.5179	14.1478
France	208	4.3434	17.8443
Australia	201	3.9768	15.2815
Germany	183	5.2992	18.2690
Switzerland	118	5.7932	18.6261
Italy	115	2.2166	16.9226
Hong Kong	91	2.8473	14.8326
Singapore	90	2.0896	15.1462
Sweden	84	3.1965	17.6799
Spain	82	5.6423	16.9336
Netherlands	73	3.9990	16.3102
Belgium	51	0.9403	10.0715
Finland	47	3.0410	18.3775
Norway	46	2.8456	17.4706
Israel	41	5.2075	13.7817
Austria	38	3.1394	14.2793
Denmark	35	2.4124	17.2576
Ireland	27	4.3350	14.5473
New Zealand	20	1.0955	14.0160
Portugal	18	2.9793	14.4345
Subtotal	5484		
<i>Panel B: Developing countries</i>			
China	507	1.4022	13.9296
Taiwan	346	0.4654	14.1863
Korea	234	3.6949	16.2530
India	170	4.9154	16.3143
Brazil	127	2.8542	15.8250
South Africa	77	4.5877	14.5198
Malaysia	67	3.6209	11.4341
Mexico	62	2.5701	12.0751
Chile	49	1.7478	14.7535
Turkey	47	0.5049	10.7462
Indonesia	44	5.0095	11.2456
Thailand	42	5.4133	11.2668
Greece	36	0.4614	10.8916
Poland	36	-0.3972	12.3469
Egypt	31	0.1637	18.5270
Qatar	24	-0.4782	9.9953
Philippines	21	4.0299	13.7649
Peru	17	3.4802	10.6021
Czech Republic	8	3.4291	10.4096
Hungary	7	1.8294	18.4352
United Arab Emirates	6	1.8060	11.2205
Subtotal	1958		
Total	7742		

Note: Panel A reports the sample summary statistics for developed countries and Panel B reports for developing countries. I use two different methods to calculate RepRisk average score. The first method includes minus one and the second one exclude minus one score.

In this study, I have considered effects of reputation risk on industry to avoid the results becoming biased towards industries. I use the MSCI sector groups to identify companies from different sectors. Table 4.3 shows sample distributions across 10 MSCI sectors. The average RepRisk score is higher in developed countries than developing countries, which is consistent with the results displayed in Table 4.2. For sectors in consumer staples, health care and finance, the average RepRisk is much higher in developed countries than in developing countries. The average RepRisk scores across sectors in the developed countries are more evenly distributed than in the developing countries. The standard deviation of the average RepRisk score is calculated using the average RepRisk score. With the exception of the energy sector, in which the reputation risk is much higher in developed countries, I have not found there to be any substantial differences between the standard deviations of the RepRisk scores of developed and developing countries.

Table 4.4 paints a more detailed picture of the distribution of companies between sectors for both developed and developing countries. There is a huge disparity between the numbers of companies in each country. The US and Japan contain large portions of the developed countries sample, which have 2,023 and 1,313 companies, respectively. A large portion of the sample companies from developing countries come from China and Taiwan, which have 507 and 346 companies respectively. In both sets of samples, the financial sector contains the largest number of companies. For this reason, I have considered the financial and non-financial sectors separately in the empirical analysis.

Table 4.3 Descriptive sample statistics across sectors

MSCI Sectors	Developed Countries			Developing Countries		
	Number of Companies	Average RepRisk Score	StdDev of RepRisk Score	Number of Companies	Average RepRisk Score	StdDev of RepRisk Score
10 Energy	316	17.9166	10.3200	70	16.9493	7.8680
15 Materials	693	15.7001	8.3649	410	15.0080	7.8843
20 Industrials	947	15.3782	7.5059	287	14.7127	8.3620
25 Consumer Discretionary	939	15.6722	7.4949	246	14.5069	7.5901
30 Consumer Staples	409	16.0365	7.9980	192	12.8146	6.6064
35 Health Care	364	16.4422	8.3009	72	13.5504	9.1725
40 Financials	1070	17.0207	8.5096	364	12.7104	6.4580
45 IT	469	16.8384	8.1548	150	15.0550	7.8046
50 Teleco- Services	75	16.2015	6.8008	55	16.1860	5.8158
55 Utilities	202	16.6446	7.3824	112	14.9595	6.5601
Total	5484			1958		

Note: This table shows the descriptive sample statistics for sectors. I compare the differences between developed countries and developing countries. The method of calculating average RepRisk score is excluding minus one in the database. The second, third and fourth column show the number of companies, average RepRisk score and standard deviation of Average RepRisk score across all the companies in a specific country in the developed countries. The rest three columns show the statistics for developing countries.

Table 4.4 Country and sector distribution

Country	10 Energy	15 Materials	20 Industrials	25 Consumer Discretionary	30 Consumer Staples	35 Health Care	40 Financials	45 IT	50 Teleco- Services	55 Utilities	Total
<i>Panel A: Developed Countries</i>											
Australia	14	62	19	28	15	9	43	4	2	5	201
Austria	3	6	9	1	1		14		1	3	38
Belgium	1	8	8	3	5	5	15	1	2	3	51
Canada	46	83	18	21	17	4	36	10	4	7	246
Denmark	1	3	7	1	3	6	13			1	35
Finland	1	11	14	7	2	1	4	4	1	2	47
France	8	16	34	40	23	14	45	16	3	9	208
Germany	5	22	41	25	12	11	45	13	2	7	183
Hong Kong	1	6	14	17	5	1	34	3	4	6	91
Ireland	1	3	7	1	5	5	4	1			27
Israel	2	6	2	4	3	2	12	5	3	2	41
Italy	4	13	19	18	9	4	31	2	3	12	115
Japan	14	219	280	285	128	62	186	111	6	22	1313
Netherlands	4	7	20	8	8	4	13	7	2		73
New Zealand	1	3	5	6		1			1	3	20
Norway	18	3	6	1	7	1	5	1	1	3	46
Portugal	1	5	1	3	2		3		1	2	18
Singapore	8	5	16	10	10	2	29	5	3	2	90
Spain	5	16	8	7	8	2	22	2	1	11	82
Sweden	2	13	16	14	7	4	22	4	1	1	84
Switzerland	2	16	21	7	8	14	36	6	1	7	118
United Kingdom	19	22	68	72	24	8	86	18	5	12	334
United States	155	145	314	360	107	204	372	256	28	82	2023
Total	316	693	947	939	409	364	1070	469	75	202	5484

Table 4.4 Country and sector distribution continued

Country	10 Energy	15 Materials	20 Industrials	25 Consumer Discretionary	30 Consumer Staples	35 Health Care	40 Financials	45 IT	50 Teleco- Services	55 Utilities	Total
<i>Panel B: Developing Countries</i>											
Brazil	2	18	9	15	15	4	32	1	6	25	127
Chile	2	9	3	3	5	1	12	1	1	12	49
China	8	141	99	65	49	35	62	20	2	26	507
Czech Republic	1				1		1		1	4	8
Egypt	1	9	2	3	1		12		3		31
Greece	2	8	4	7	5		6		1	3	36
Hungary	1	1				2	1		1	1	7
India	15	35	15	14	14	10	34	11	7	15	170
Indonesia	3	12	3	2	8		13		2	1	44
Korea	7	42	42	44	22	14	38	13	6	6	234
Malaysia	7	7	7	12	11		13		4	6	67
Mexico	1	16	6	12	12	1	9		5		62
Peru		6			2		5		1	3	17
Philippines	1	3	3	3	1		5		2	3	21
Poland	3	8	1	5	2		15	1	1		36
Qatar	1	2	4	1			14		1	1	24
South Africa		26	7	9	12	2	15	2	4		77
Taiwan	5	56	73	33	23	2	49	100	3	2	346
Thailand	6	6	7	5	3	1	8	1	2	3	42
Turkey	3	5	1	11	6		18		2	1	47
United Arab Emirates	1		1	2			2				6
Total	70	410	287	246	192	72	364	150	55	112	1958

Note: This table presents the sample distribution on countries and sectors. Panel A shows the statistics for developed countries and Panel B show the statistics for developing countries.

4.4 Method

4.4.1 Portfolio formation

Since the purpose of this study is to evaluate the impact of corporate reputation risk on shareholder value, I use the portfolio approach to examine abnormal returns by accounting for various common risk factors. In order to compare the differences between high reputation risk and low reputation risk companies, I have applied three types of portfolio construction strategy in this study. Firstly, in line with the most common portfolio strategies, I have constructed buy and hold portfolios for the companies, and these have been adjusted monthly on the basis of their reputational score in the previous month. Secondly, similar to Kempf and Osthoff (2007) and Fang and Peress (2009), I have constructed long-short portfolios that long companies with low reputation risk and short companies with high reputation risk. Thirdly, the methodology employed in the robustness test section is similar to that proposed by Daniel et al. (1997), in that it uses benchmarks that are based on the characteristics of stocks. I have adopted the characteristic-matched portfolio approach, which pairs companies in high and low reputation risk groups by their shared characteristics: belonging to the same country and sector, and having a similar size and value. The following explains the detailed process of each portfolio construction strategy.

Firstly, in order to compare the differences between high reputation risk and low reputation risk companies, I select the portfolios based on the companies' reputational score. Each month, I group each company into one of the three buy and hold portfolios: high reputation risk, low reputation risk, and neutral risk. I firstly calculate the mean reputational score for each sector in each month, and then assign each company to the high or low reputation risk group depending on whether their reputational score is above or below the mean. If a company's reputation score is '-1', it is automatically assigned to the neutral risk portfolio. In the robustness test, I also use the median reputational score in separating the three portfolios. I then compute both the equal-weighted and value-weighted returns of the three portfolios for the following month using companies' individual stock returns.

In addition, in examining the effects of reputational risk and in controlling for common risk factors, I also construct long-short portfolios. Taking a similar approach to Kempf

and Osthoff (2007) and Fang and Peress (2009), I apply a zero-investment strategy that computes the return in the following month that long the stocks with low reputation risk and short the stocks with high reputation risk. A positive alpha in a long-short portfolio indicates that buying low reputation risk companies and selling high reputation risk companies would earn abnormal returns. I repeat this process for each month and obtain a time series of returns for the zero-investment portfolios.

For the characteristic-matched strategy, I use a more rigorous approach to ensure that the performance of the portfolios is not biased towards particular countries, sectors, company sizes and values. I firstly split the full sample into high and low reputational groups based on the previous month's average reputational score in each sector. I then match companies from the high and low reputational groups that belong to the same country and sector, and which are similar in size and value. I use market capitalization to measure size and book to market ratio to measure value. Only matched pairs of companies from the high and low reputation risk groups have been included in the portfolios that are matched by characteristics. This process significantly reduces the sample size. As the sample is adjusted on a monthly basis, it is not possible to identify the exact number of companies that are included over the whole sample period. For instance, the process of matching portfolios in the first month left less than 2,500 companies in consideration.

As is stated above, the full sample contains 7,442 companies, in which 5,484 companies are from developed countries and 1,957 companies are from developing countries. It should be remembered that the RepRisk Index data only covers the period from January 2007 to July 2012. The portfolios have been constructed on the basis of the reputation risk score from the previous month, and therefore the portfolios are lagged for one month. In compiling the sub-samples of developed and developing countries, I firstly split the sample into companies which belonged to developed and developing countries and apply the same methodology in the portfolio construction. Similarly, for the financial and non-financial sub-portfolios, I consider all of the companies in the sample and separate the ones that belong to financial and non-financial sectors.

4.4.2 Benchmarks and measures

In the analysis of each type of portfolio, I run time series regressions of portfolio excess returns for each month on contemporaneous risk exposure factors using both the capital asset pricing model (CAPM) and the Carhart (1997) four-factor model, which are relatively common models for estimating risk-adjusted returns. I firstly apply the CAPM model, which implies that portfolio returns can be explained by systematic risk. The equation is specified as follows:

$$R_{it} - R_{ft} = \alpha_i + \beta_i (R_{mt} - R_{ft}) + \varepsilon_{it}$$

Where $R_{it} - R_{ft}$ and $R_{mt} - R_{ft}$ represent the excess return of the portfolio and the market over the risk-free asset return, respectively. α_i denotes Jensen (1968) alpha, which can be interpreted as portfolio's systematic return component above or below the return achieved by the equity benchmark for the same level of systematic risk. β_i is the portfolio's systematic exposure to the market portfolio. ε_{it} represents the error term.

I then perform the analysis by estimating the abnormal returns of the constructed portfolios using the Carhart (1997) four-factor model. The equation is specified as follows:

$$R_{it} - R_{ft} = \alpha_i + \beta_i (R_{mt} - R_{ft}) + \gamma_i SMB_t + \delta_i HML_t + \lambda_i MOM_t + \varepsilon_{it}$$

Where $R_{it} - R_{ft}$ and $R_{mt} - R_{ft}$ represent the excess return of the portfolio and the market over the risk-free asset return. α_i denotes Jensen (1968) alpha, which can be interpreted as portfolio's systematic return component above or below the return achieved by the equity benchmark for the same level of systematic risk. β_i is the portfolio's systematic exposure to the market portfolio. Where γ_i , δ_i and λ_i measure the exposure of a portfolio to the small cap, value, and momentum investment styles. The size factor SMB_t (small minus big) represents the difference return of small stocks portfolios and big stocks portfolios. The book to market ratio factor HML_t (high minus low) represents difference return of investing high book-to-market ratio portfolios (top 30%) and low book-to-market ratio portfolios (bottom 30%). The momentum factor MOM_t represents the difference return of winner stocks portfolios (top 30%) and

looser stocks portfolios (top 30%). ε_{it} represents the error term. The benchmark factors for these investment styles are obtained from Style Research. The risk-free rate is downloaded from Datastream. I use the US 3 months Treasury Bill Rate as the risk-free rate for all the portfolios.

In order to consistently match the performance of selected stocks in the portfolio and effectively evaluate risk-adjusted returns, I select a self-constructed market benchmark for all the portfolios, which I self-construct market benchmarks according to the characteristics of companies included in the portfolio. More specifically, sample portfolios that include companies from both developed and developing countries use a value-weighted market benchmark by including all of the companies in the sample. This market benchmark has also been used for the portfolios based on characteristic-matched strategy. For a sample that includes only developed countries, I provide a matching market benchmark using companies from all developed countries in the sample. For a sample that includes only developing countries, I provide a matching market benchmark using companies from all developed countries in the sample. All market benchmarks are value-weighted.

This benchmark is appropriate for the sample because it keeps close track of the country and sector weights in the sample and reflects the risk characteristics of matching stocks. The abnormal returns calculated based on normal market index are misspecified; however, the use of matching sample firms as a market index can correct this misspecification (Barber and Lyon, 1997). For instance, it would not be appropriate to evaluate the risk-adjusted return of a stocks sample from a developed country in the MSCI All Country Index. Also, it would not be appropriate to evaluate the risk-adjusted returns of a sample that includes all of the 44 countries when the weighting of the countries in the sample is vastly different from that of the MSCI All Country Index. More importantly, standard market benchmarks, such as the S&P 500 and MSCI USA indexes tend to put more weight on financial sector stocks. Such weightings are unsuitable for this study, as there is a marked difference in the ways in which CSiR manifests itself in financial and non-financial sectors.

4.5 Results

I firstly examine the abnormal returns of the portfolios constructed using the full sample, which includes all 44 countries. Having done so, I compare the differences between the samples for developed and developing countries, as well as the differences between the samples for the financial and non-financial sectors. I then split the sample of companies from developed countries into sub-samples of companies from financial and non-financial sectors, and do the same for the sample of developing countries.

4.5.1 High and low reputation risk

Table 4.5 displays the risk-adjusted performance of the sample of all 44 countries over the portfolio formation period of February 2007 to August 2012. Panel A presents the equal-weighted results and Panel B shows the value-weighted results. Both panels present the risk-adjusted performance of the high reputation risk, low reputation risk, neutral risk, and long-short portfolios. The neutral risk portfolio consists of stocks with no reputation risk and the long-short portfolio that buying stocks with low reputation risk and selling stocks with high reputation risk. Portfolios are adjusted monthly and the number of monthly observations varies for different portfolios.

The table shows that high reputation risk portfolios perform worse than low reputation risk portfolios even after controlling the risks for market, size, value, momentum, and the application of different portfolio weighting methods. The results suggest that not only market risk, but also the factors of size, value, and momentum have a significant influence on the portfolio excess returns, as most of the coefficients are significant. The abnormal returns presented in the CAPM and Carhart models are similar, but those displayed in the latter have a slightly higher adjusted R-squared value, which means that the Carhart model is more fitted.

As the results shown in studies used similar asset pricing models, such as Chan (2003), Derwall et al. (2005), Kempf and Osthoff (2007), Fang and Peress (2009) and Hoepner, Rammal and Rezec (2011), show high adjusted R-squared values. For instance, the adjusted R-squared values range between 77% and 96% for all the high-rated portfolios and low-rated portfolios in Table 2 (pp 915) in the Kempf and Osthoff (2007)'s study. Note that the long-short strategy portfolios generally have lower

adjusted R-squared values due to the portfolio excess returns having a low correlation with the market benchmark. Similar studies, such as those of Kempf and Osthoff (2007), have reported that low adjusted R-squared values can be seen in long-short portfolios.

For equal-weighted returns, the Carhart results show that the high and low reputation risk portfolios exhibit statistically significant monthly abnormal returns of -0.58% and -0.32%, respectively. When using a value-weighted portfolio construction method, the abnormal returns of all four portfolios are higher, which means that small companies are more prone to underperformance. The Carhart results in the value-weighted panel reveal that the high and low reputation risk portfolios exhibit monthly abnormal returns of -0.12% and 0.14% respectively, at significant levels of 1%. In both panels, the results of low reputation risk portfolios compare similarly to those of neutral risk portfolios. In addition, if investors hold a long-short portfolio, they can generate a monthly positive abnormal return of 0.2%, which is 2.4% annually in both weighted schemes. The results prove that the value-weighted method is more appropriate for this study, due the disparity in size between the various companies included in the portfolio.

The results are consistent with those of Eccles, Ioannou and Serafeim (2014) who employ a similar methodology. Using firms' ESG disclosure ratings as a measurement for sustainability, their study compares a matched sample of 180 high and low sustainability US companies. They also employ the Carhart four-factor model, and both equal-weighted and value-weighted portfolios show that high sustainability companies significantly outperform low sustainability companies in the long term. More specifically, the high sustainability portfolio outperforms the low sustainability portfolio by 4.8% monthly on a value-weighted scheme and by 2.3% on an equal-weighted scheme. In a study with a different research angle, Fang and Peress (2009) find that firms with no media coverage earn higher returns than stocks with high media coverage by controlling widely accepted risk factors including market, size, book-to-market ratio, momentum and the Pastor and Stambaugh (2003) liquidity factor.

Given that I use a self-matched market benchmark in this study, the differences between the high and low reputational portfolios remain constant even after applying other market benchmarks, such as the MSCI All Country Index. I find that by using

the MSCI All Country Index, the abnormal returns for both high and low reputation risk portfolios are higher, but the results for the long-short portfolio remain similar. In fact, I find that the differences between high and low reputation risk portfolios are similar no matter what market benchmarks are used. However, the adjusted R-squared values are lowered by the use of other market benchmarks. The higher adjusted R-squared values generally indicate that the current regressions are considerably more powerful.

Table 4.5 Risk-adjusted returns of all countries

	CAPM			Carhart					
	Alpha	Market	Adj. R ²	Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Equal weighted</i>									
High Reputation Risk	-0.0058 (-3.527)***	1.2061 (25.253)***	0.973	-0.0058 (-6.731)***	1.1192 (59.321)***	0.4422 (7.690)***	-0.0328 (-0.926)	-0.1354 (-5.954)***	0.990
Low Reputation Risk	-0.0029 (-1.515)	1.0846 (21.374)***	0.955	-0.0032 (-3.449)***	0.9909 (45.843)***	0.5467 (9.239)***	-0.0929 (-1.746)*	-0.1517 (-5.492)***	0.985
Neutral Risk	-0.0030 (-1.524)	1.0781 (20.371)***	0.953	-0.0033 (-3.274)***	0.9830 (40.170)***	0.5524 (8.823)***	-0.0885 (-1.572)	-0.1514 (-5.362)***	0.983
Long Low Short High	0.0022 (2.045)**	-0.1214 (-5.874)***	0.413	0.0020 (2.132)**	-0.1273 (-4.996)***	0.0996 (1.58)	-0.0680 (-1.781)*	-0.0206 (-1.056)	0.441
<i>Panel B: Value weighted</i>									
High Reputation Risk	-0.0018 (-2.732)***	1.0059 (70.817)***	0.993	-0.0012 (-3.746)***	1.0236 (174.451)***	-0.2179 (-14.575)***	0.0743 (4.644)***	0.0144 (2.919)***	0.998
Low Reputation Risk	0.0022 (2.301)**	0.9876 (46.251)***	0.986	0.0014 (3.442)***	0.9635 (125.668)***	0.3028 (14.660)***	-0.1147 (-7.038)***	-0.0255 (-4.634)***	0.997
Neutral Risk	0.0023 (2.277)**	0.9831 (39.074)***	0.984	0.0015 (3.608)***	0.9551 (80.292)***	0.3308 (12.471)***	-0.1178 (-6.085)***	-0.0294 (-4.683)***	0.996
Long Low Short High	0.0033 (2.068)**	-0.0181 (-0.510)	-0.007	0.0020 (2.849)***	-0.0590 (-4.426)***	0.5159 (15.894)***	-0.1969 (-6.450)***	-0.0442 (-4.257)***	0.739

Note: The table presents the risk-adjusted performance of the high reputation risk, low reputation risk, neutral risk and long-short portfolios. High and low reputation risk portfolio consists of stocks with reputational score is above and below the mean, respectively. The neutral risk portfolio consists of stocks with no reputation risk and the long-short portfolio that buying stocks with low reputation risk and selling stocks with high reputation risk. Panel A shows the results of equal-weighted portfolios and Panel B shows the results of value-weighted portfolios. Portfolios are monthly adjusted based on sample period from February 2007 to August 2012. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the method.

4.5.2 Developed and developing countries

I use the method outlined above to construct portfolios for samples of developed and developing countries. In Table 4.6 below, Panel A presents the results of companies from developed countries and Panel B shows the results of those from developing countries. Portfolios are adjusted monthly based on the sample period of February 2007 to August 2012. As is stated above, the value-weighted portfolios are more representative, because the self-constructed market benchmark is also value-weighted. Therefore, I only report the value-weighted results in Table 4.6.

In the reported Carhart results, the developed countries panel shows that only the neutral risk portfolio achieves a monthly alpha of 0.11% at a significance level of 10%, while all the alphas in the developing countries panel are at significance levels of 1%. The high and low reputation risk portfolios exhibit statistically significant monthly abnormal returns of -0.42% and 0.27%, respectively. Also, the long-short portfolio in developing countries exhibits a statistically significant abnormal monthly return of 0.63%, which is much higher than the sample for developed countries shown in the previous table.

In summary, developing countries portfolios show more significant differences between portfolios in high and low reputation risk. Conversely, less significant results can be found in portfolios in the developed countries. Compared to the previous table, the long-short portfolio's alpha in the developing countries sample is much higher than the sample including all 44 countries. This suggests that stocks invested in the developing countries are more profitable. There are two possible explanations for these results. The first possibility is that the companies in developed countries may generally have a lower reputation risk than those of developing countries, and the companies included in the high and low reputation risk portfolios may be likely to display similar characteristics. Alternatively, it may be the case that companies with low reputation risk do not actually outperform those with a high reputation risk.

Table 4.6 Risk-adjusted returns of developed and developing countries

	CAPM			Carhart					
	Alpha	Market	Adj. R ²	Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Developed countries</i>									
High Reputation Risk	-0.0009 (-1.549)	1.0199 (86.502)***	0.994	-0.0005 (-1.211)	1.0380 (139.735)***	-0.1867 (-11.983)***	0.0607 (4.294)***	0.0248 (3.857)***	0.997
Low Reputation Risk	0.0015 (1.777)*	0.9634 (46.375)***	0.984	0.0008 (1.61)	0.9370 (73.889)***	0.2998 (12.084)***	-0.1040 (-4.616)***	-0.0375 (-4.141)***	0.993
Neutral Risk	0.0018 (1.876)*	0.9588 (37.910)***	0.981	0.0011 (1.760)*	0.9279 (51.512)***	0.3173 (11.575)***	-0.1026 (-3.600)***	-0.0422 (-4.163)***	0.991
Long Low Short High	0.0018 (1.182)	-0.0558 (-1.723)*	0.059	0.0007 (0.715)	-0.0996 (-4.927)***	0.4875 (12.621)***	-0.1731 (-4.788)***	-0.0661 (-4.237)***	0.585
<i>Panel B: Developing countries</i>									
High Reputation Risk	-0.0050 (-3.041)***	1.0024 (54.682)***	0.974	-0.0042 (-3.667)***	1.0028 (78.386)***	-0.3514 (-7.970)***	-0.0164 (-0.631)	-0.0219 (-0.800)	0.988
Low Reputation Risk	0.0030 (3.194)***	0.9902 (104.944)***	0.991	0.0027 (3.921)***	0.9912 (116.444)***	0.1654 (6.148)***	-0.0341 (-1.695)*	-0.0024 (-0.133)	0.995
Neutral Risk	0.0028 (2.530)**	0.9870 (89.327)***	0.986	0.0024 (2.943)***	0.9881 (96.520)***	0.2036 (5.591)***	-0.0481 (-1.857)*	-0.0138 (-0.615)	0.993
Long Low Short High	0.0074 (3.014)***	-0.0135 (-0.523)	-0.012	0.0063 (3.713)***	-0.0129 (-0.658)	0.5142 (9.758)***	-0.0227 (-0.552)	0.0155 (0.355)	0.540

Note: The table presents the risk-adjusted performance of the high reputation risk, low reputation risk, neutral risk and long-short portfolios in developed and developing countries. High and low reputation risk portfolio consists of stocks with reputational score is above and below the mean, respectively. The neutral risk portfolio consists of stocks with no reputation risk and the long-short portfolio that buying stocks with low reputation risk and selling stocks with high reputation risk. All the portfolios are value-weighted. Panel A and B shows the results of developed countries and developing countries, respectively. Portfolios are monthly adjusted based on sample period from February 2007 to August 2012. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

4.5.3 Financial and non-financial sectors

Companies in financial sectors are less likely to involve socially irresponsible behaviour, so I expect that the impact of CSiR risk on financial returns will be less pronounced in financial sectors than non-financial sectors. Table 4.7 presents the risk-adjusted performances of the high and low reputation risk portfolios in financial and non-financial sectors. All the portfolios have been value-weighted. Panel A shows the results of financial sectors and Panel B shows the results of non-financial sectors. The portfolios are adjusted monthly based on the sample period from February 2007 to August 2012.

The high and low reputation risk portfolios show statistically significant differences in the non-financial sectors, while the financial sectors display less significant differences. In the reported Carhart results, only the high reputation risk portfolio in the financial sector panel exhibits a monthly alpha of -0.14% at a 10% significance level. All the alphas in the non-financial sectors panel are at significance levels of 1%. The high and low reputation risk portfolios exhibit statistically significant abnormal returns of -0.13% per month and 0.16% per month, respectively. In addition, the long-short portfolio in the financial sector panel exhibits similar abnormal returns to that in the non-financial sector panel, though only the latter is significant. Since the abnormal returns are more likely to be significant in the non-financial sectors, it appears that either not much attention is paid to reputation risk by investors in the financial sector, or perhaps because they do not expect the potential damage of reputation risk to have much of an impact on the financial sector.

Table 4.7 Risk-adjusted returns of financial and non-financial sectors

	CAPM			Carhart					
	Alpha	Market	Adj. R ²	Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Financial sectors</i>									
High Reputation Risk	-0.0023 (-2.333)**	1.0828 (91.514)***	0.988	-0.0014 (-1.869)*	1.0750 (91.898)***	-0.2118 (-5.287)***	0.1238 (4.649)***	-0.0127 (-0.701)	0.992
Low Reputation Risk	0.0024 (1.825)*	0.8881 (55.295)***	0.973	0.0011 (1.170)	0.9058 (64.682)***	0.2586 (4.923)***	-0.1700 (-5.355)***	0.0315 (1.400)	0.982
Neutral Risk	0.0021 (1.523)	0.8860 (43.732)***	0.971	0.0008 (0.810)	0.8992 (56.484)***	0.2815 (4.304)***	-0.1586 (-4.368)***	0.0298 (1.227)	0.981
Long Low Short High	0.0040 (1.742)*	-0.1941 (-7.098)***	0.341	0.0020 (1.119)	-0.1679 (-6.539)***	0.4652 (5.083)***	-0.3023 (-5.331)***	0.0402 (0.988)	0.559
<i>Panel B: Non-financial sectors</i>									
High Reputation Risk	-0.0018 (-2.665)***	0.9890 (67.468)***	0.992	-0.0013 (-3.614)***	1.0163 (166.301)***	-0.2271 (-14.380)***	0.0562 (3.730)***	0.0248 (5.504)***	0.997
Low Reputation Risk	0.0022 (2.177)**	1.0113 (43.918)***	0.985	0.0016 (3.668)***	0.9722 (113.252)***	0.3235 (14.159)***	-0.0938 (-6.193)***	-0.0456 (-8.606)***	0.996
Neutral Risk	0.0024 (2.267)**	1.0050 (37.624)***	0.982	0.0018 (4.051)***	0.9621 (74.489)***	0.3529 (12.681)***	-0.1005 (-5.681)***	-0.0498 (-7.020)***	0.995
Long Low Short High	0.0033 (1.996)*	0.0221 (0.589)	-0.004	0.0024 (3.071)***	-0.0434 (-3.049)***	0.5460 (15.535)***	-0.1577 (-5.498)***	-0.0749 (-7.885)***	0.724

Note: The table presents the risk-adjusted performance of the high reputation risk, low reputation risk, neutral risk and long-short portfolios in financial sectors and non-financial sectors. High and low reputation risk portfolio consists of stocks with reputational score is above and below the mean, respectively. The neutral risk portfolio consists of stocks with no reputation risk and the long-short portfolio that buying stocks with low reputation risk and selling stocks with high reputation risk. All the portfolios are value-weighted. Panel A shows the results of financial sectors and Panel B shows the results of non-financial sectors. Portfolios are monthly adjusted based on sample period from February 2007 to August 2012. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

4.5.4 Subsamples of developed and developing countries

Thus far, most of the results have shown there to be significant differences between high and low reputation risk portfolios. I now analyse the differences between sectors in the samples for developed and developing countries. Table 4.8 presents the risk-adjusted performance of the high and low reputation risk portfolios in the financial and non-financial sectors in the developed countries. All the portfolios are value-weighted. Panel A shows the results of financial sectors and Panel B shows the results of non-financial sectors. Similar to the results of the country and sector portfolios discussed above, most of the alphas in the Carhart model results are not significant in either the financial or the non-financial sector panels. In the non-financial sector panel, the low reputation risk portfolios exhibit positive monthly abnormal returns of 0.11% at a significance level of 10%, and the neutral risk portfolios exhibit positive monthly abnormal returns of 0.15% at a significance level of 5%. These results are in line with previous findings that show that developed countries tend to have less significant results while non-financial sectors tend to have more significant results.

Table 4.9 presents the risk-adjusted performance of the high and low reputation risk portfolios in the financial and non-financial sectors in the developing countries. Again, all the portfolios are value-weighted. Panel A shows the results of financial sectors and Panel B shows the results of non-financial sectors. I find that all the alphas in the Carhart model results are not significant in the financial sectors panel, and all the alphas show significance at 1% level in the non-financial sectors panel. In the non-financial sectors, the high and low reputation risk portfolios exhibit statistically significant abnormal returns of -0.61% per month and 0.35% per month, respectively. The neutral risk portfolio maintains similar results in comparison with those of the low reputation risk portfolio, while the long-short portfolio generates a monthly alpha of 0.90%, which is the highest performance of long-short portfolios of all the results yet obtained. Again, these results are in line with previous findings which show that companies from developing countries and non-financial sectors both tend to have more significant results.

Table 4.8 Risk-adjusted returns of developed countries' sub sample

	CAPM			Carhart					
	Alpha	Market	Adj. R ²	Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Developed countries - financial sectors</i>									
High Reputation Risk	-0.0018 (-1.765)*	1.1136 (112.390)***	0.989	-0.0008 (-0.832)	1.0952 (73.550)***	-0.2424 (-5.207)***	0.1326 (4.584)***	-0.0097 (-0.553)	0.991
Low Reputation Risk	0.0021 (1.400)	0.8299 (48.294)***	0.962	0.0004 (0.330)	0.8683 (42.334)***	0.3364 (5.063)***	-0.2083 (-4.976)***	0.0306 (1.270)	0.973
Neutral Risk	0.0020 (1.240)	0.8222 (38.097)***	0.957	0.0002 (0.140)	0.8604 (37.308)***	0.3725 (4.674)***	-0.2207 (-4.538)***	0.0291 (1.180)	0.970
Long Low Short High	0.0033 (1.270)	-0.2827 (-10.675)***	0.496	0.0006 (0.250)	-0.2245 (-6.328)***	0.5802 (5.200)***	-0.3510 (-5.000)***	0.0375 (0.900)	0.628
<i>Panel B: Developed countries - non-financial sectors</i>									
High Reputation Risk	-0.0007 (-1.293)	1.0022 (83.880)***	0.994	-0.0006 (-1.447)	1.0308 (136.288)***	-0.1740 (-10.043)***	0.0403 (2.724)***	0.0361 (6.225)***	0.997
Low Reputation Risk	0.0014 (1.540)	0.9944 (45.280)***	0.982	0.0011 (1.965)*	0.9478 (67.922)***	0.2928 (10.279)***	-0.0721 (-3.006)***	-0.0599 (-6.786)***	0.992
Neutral Risk	0.0018 (1.810)*	0.9888 (37.923)***	0.979	0.0015 (2.307)**	0.9375 (49.759)***	0.3094 (11.024)***	-0.0704 (-2.498)**	-0.0646 (-6.506)***	0.990
Long Low Short High	0.0015 (0.980)	-0.0074 (-0.219)	-0.014	0.0012 (1.090)	-0.0822 (-3.802)***	0.4680 (10.638)***	-0.1203 (-3.135)***	-0.1001 (-6.786)***	0.530

Note: The table presents the risk-adjusted performance of the high reputation risk, low reputation risk, neutral risk and long-short portfolios in financial and non-financial sectors in developed countries. High and low reputation risk portfolio consists of stocks with reputational score is above and below the mean, respectively. The neutral risk portfolio consists of stocks with no reputation risk and the long-short portfolio that buying stocks with low reputation risk and selling stocks with high reputation risk. All the portfolios are value-weighted. Panel A and B shows the results of financial sectors and non-financial sectors, respectively. Portfolios are monthly adjusted based on sample period from February 2007 to August 2012. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

Table 4.9 Risk-adjusted returns of developing countries' sub sample

	CAPM			Carhart					
	Alpha	Market	Adj. R ²	Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Developing countries - financial sectors</i>									
High Reputation Risk	-0.0031 (-1.494)	1.0105 (35.613)***	0.963	-0.0018 (-1.350)	1.0034 (63.044)***	-0.3823 (-4.854)***	-0.148 (-3.474)***	-0.0087 (-0.246)	0.975
Low Reputation Risk	0.0013 (0.910)	0.9967 (44.037)***	0.976	0.0004 (0.390)	1.0008 (67.578)***	0.2508 (3.516)***	0.0960 (2.351)**	-0.0063 (-0.189)	0.981
Neutral Risk	0.0008 (0.510)	1.0017 (39.552)***	0.970	-0.0003 (-0.274)	1.0063 (57.356)***	0.3043 (3.956)***	0.1101 (2.350)**	-0.0167 (-0.479)	0.977
Long Low Short High	0.0039 (1.130)	-0.0148 (-0.290)	-0.014	0.0017 (0.700)	-0.0038 (-0.124)	0.6301 (4.271)***	0.2388 (2.948)***	-0.0016 (-0.023)	0.268
<i>Panel B: Developing countries - non-financial sectors</i>									
High Reputation Risk	-0.0065 (-3.970)***	0.9982 (47.406)***	0.966	-0.0061 (-4.026)***	0.9970 (58.413)***	-0.2777 (-4.524)***	0.0792 (2.225)**	-0.0326 (-0.948)	0.981
Low Reputation Risk	0.0037 (3.802)***	0.9860 (101.929)***	0.989	0.0035 (4.189)***	0.9887 (107.586)***	0.1259 (4.889)***	-0.0892 (-4.720)***	-0.0029 (-0.173)	0.994
Neutral Risk	0.0034 (2.932)***	0.9813 (90.141)***	0.984	0.0032 (3.163)***	0.9841 (92.445)***	0.1510 (3.847)***	-0.1070 (-4.698)***	-0.0158 (-0.769)	0.991
Long Low Short High	0.0096 (3.889)***	-0.0136 (-0.497)	-0.013	0.0090 (4.122)***	-0.0096 (-0.406)	0.4011 (5.891)***	-0.1732 (-3.590)***	0.0258 (0.560)	0.461

Note: The table presents the risk-adjusted performance of the high reputation risk, low reputation risk, neutral risk and long-short portfolios in financial sectors and non-financial sectors in developing countries. High and low reputation risk portfolio consists of stocks with reputational score is above and below the mean, respectively. The neutral risk portfolio consists of stocks with no reputation risk and the long-short portfolio that buying stocks with low reputation risk and selling stocks with high reputation risk. All the portfolios are value-weighted. Panel A shows the results of financial sectors and Panel B shows the results of non-financial sectors. Portfolios are monthly adjusted based on sample period from February 2007 to August 2012. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

4.6 Robustness tests

In this section, I perform several robustness tests based on the results shown previously. In particular, I try to alleviate the concern that the gap between high and low reputation risk portfolios could be driven by country weights, sector weights, company sizes, companies' book-to-market values, and the method used to separate high and low reputation risk portfolios.

4.6.1 Alternative cut-offs

Categorising high and low reputation risk portfolios by the average of their reputational score each month could result in an unbalanced sample, due to the extreme value of the reputational scores. The alternative cut-offs are used in an attempt to divide high and low reputational portfolios by the median of their reputational score, with other portfolio construction strategies kept the same, as is outlined in the methodology section.

Table 4.10 shows the results using the median as an alternative cut-off. Panel A displays the equal-weighted results and Panel B displays results on a value-weighted method. The only difference between Panel A and the main results in Table 4.5 is that the long-short portfolio's abnormal returns become insignificant. In Panel B, the Carhart model results show that the abnormal returns of high reputation risk and neutral risk portfolios remain similar to the results shown in the main results in Table 4.5, which uses the mean as the categorising method. It should be noted that the high reputation risk portfolio generates a significant monthly alpha of -0.24% compared to -0.12% in the main results, which suggests that higher reputation risk portfolios categorised by the median perform even worse than those categorised by the mean. However, both the alphas of the low reputation risk portfolio and long-short portfolio are insignificant in the value-weighted results. This indicates that investors should choose companies with extreme values in reputation risk in order to increase profits in the long-short strategy.

Table 4.10 Alternative categorizing strategy

	CAPM			Carhart					
	Alpha	Market	Adj. R ²	Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Equal weighted</i>									
High Reputation Risk	-0.0061 (-4.185)***	1.1897 (35.897)***	0.973	-0.0059 (-6.002)***	1.1249 (54.416)***	0.2923 (4.997)***	-0.0181 (-0.390)	-0.1134 (-3.691)***	0.983
Low Reputation Risk	-0.0042 (-2.045)**	1.1888 (18.965)***	0.962	-0.0047 (-4.681)***	1.0873 (52.865)***	0.6011 (9.657)***	-0.0785 (-2.649)**	-0.1463 (-6.536)***	0.990
Neutral Risk	-0.0030 (-1.524)	1.0781 (20.371)***	0.953	-0.0033 (-3.274)***	0.9830 (40.170)***	0.5524 (8.823)***	-0.0885 (-1.572)	-0.1514 (-5.362)***	0.983
Long Low Short High	0.0013 (0.950)	-0.0007 (-0.020)	-0.015	0.0007 (0.630)	-0.0366 (-1.668)	0.3040 (4.512)***	-0.0684 (-2.245)**	-0.0372 (-1.654)	0.264
<i>Panel B: Value weighted</i>									
High Reputation Risk	-0.0031 (-3.364)***	1.0075 (71.359)***	0.982	-0.0024 (-2.783)***	1.0316 (66.009)***	-0.2796 (-7.792)***	0.0883 (3.334)***	0.0188 (1.610)	0.989
Low Reputation Risk	0.0009 (0.940)	0.9896 (55.722)***	0.983	0.0009 (0.830)	0.9872 (51.852)***	0.0208 (0.320)	-0.0096 (-0.218)	-0.0057 (-0.323)	0.983
Neutral Risk	0.0023 (2.277)**	0.9831 (39.074)***	0.984	0.0015 (3.608)***	0.9551 (80.292)***	0.3308 (12.471)***	-0.1178 (-6.085)***	-0.0294 (-4.683)***	0.996
Long Low Short High	0.0034 (2.058)**	-0.0177 (-0.835)	-0.009	0.0027 (1.500)	-0.0434 (-1.321)	0.2957 (3.136)***	-0.1059 (-1.745)*	-0.0288 (-1.055)	0.129

Note: The table presents the risk-adjusted performance of the high reputation risk, low reputation risk, neutral risk and long-short portfolios using alternative categorizing strategy. High and low reputation risk portfolio consists of stocks with reputational score is above and below the mean, respectively. The neutral risk portfolio consists of stocks with no reputation risk and the long-short portfolio that buying stocks with low reputation risk and selling stocks with high reputation risk. This table includes the sample of all countries. Panel A shows the results of equal-weighted portfolios and Panel B shows the results of value-weighted portfolios. Portfolios are monthly adjusted based on sample period from February 2007 to August 2012. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

4.6.2 Characteristic-matched sample

In this section, I also try to alleviate the concern that the gap between high and low reputation risk portfolios could be driven by country weights, sector weights, company sizes and companies' book-to-market value. In doing so, I check that the results are not biased in favour of countries and sectors that happen to enjoy high returns for low reputation risk portfolios. In each month, I select characteristic-matched companies in both high and low reputation risk portfolios by the same country, sector, and have similar size and value in the previous month.

As can be seen from Table 4.11 below, the results show that samples matched by characteristics display results that are consistent with the main results shown in Table 4.5. Panel A displays the results obtained by using an equal-weighted method and Panel A presents the results acquired by using a value-weighted method. Both the results from the equal-weighted and value-weighted methods are similar to the results shown in Table 4.5. In Panel B, the Carhart model results show that the alphas in high reputation risk, low reputation risk, and neutral risk portfolios become higher than the results in Table 4.5, which may be owing to the fact that a significant number of companies are excluded during the matching process. The long-short portfolio presents positive abnormal returns of 0.25% at a significance level of 5%, which remains similar to the main results. The results show that the abnormal returns are less significant when using the method of matching characteristics, which highlights the importance of comparing companies with similar characteristics in the high and low reputation risk portfolios.

Table 4.11 Characteristic-matched sample

	CAPM			Carhart					
	Alpha	Market	Adj. R ²	Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Equal weighted</i>									
High Reputation Risk	-0.005 (-2.898)***	1.211 (24.420)***	0.969	-0.0052 (-6.590)***	1.113 (72.001)***	0.5165 (10.782)***	-0.0526 (-1.327)	-0.1543 (-6.940)***	0.992
Low Reputation Risk	-0.0026 (-1.288)	1.0458 (20.802)***	0.93	-0.0028 (-2.669)***	0.9555 (39.318)***	0.53 (8.441)***	-0.0996 (-1.732)*	-0.1511 (-4.976)***	0.98
Neutral Risk	-0.0027 (-1.298)	1.0389 (20.612)***	0.932	-0.0029 (-2.478)***	0.9433 (38.441)***	0.541 (8.11)***	-0.0866 (-1.732)*	-0.1507 (-4.743)***	0.977
Long Low Short High	0.0019 (1.880)*	-0.1651 (-9.671)***	0.599	0.0018 (1.880)*	-0.1566 (-6.834)***	0.0086 (0.186)	-0.0549 (-1.631)	-0.0011 (-0.063)	0.597
<i>Panel B: Value weighted</i>									
High Reputation Risk	-0.0005 (-1.778)*	1.0004 (61.884)***	0.978	-0.0006 (-1.894)*	1.0022 (56.099)***	-0.0188 (-1.745)*	0.0036 (0.155)	-0.0346 (-2.003)**	0.978
Low Reputation Risk	0.0045 (3.762)***	0.9103 (36.798)***	0.963	0.0038 (4.650)***	0.8933 (56.961)***	0.2895 (6.187)***	-0.1768 (-4.472)***	-0.0458 (-2.960)***	0.978
Neutral Risk	0.0043 (3.541)***	0.9079 (32.956)***	0.961	0.0039 (4.790)***	0.8878 (49.286)***	0.2955 (6.112)***	-0.179 (-4.343)***	-0.0477 (-3.060)***	0.976
Long Low Short High	0.0033 (2.242)**	-0.0845 (-3.908)***	0.136	0.0025 (2.043)**	-0.0879 (-4.008)***	0.2659 (5.507)***	-0.1883 (-5.248)***	-0.0156 (-0.743)	0.378

Note: The table presents the risk-adjusted performance of the high reputation risk, low reputation risk, neutral risk and long-short portfolios using characteristic-matched sample. High and low reputation risk portfolio consists of stocks with reputational score is above and below the mean, respectively. The neutral risk portfolio consists of stocks with no reputation risk and the long-short portfolio that buying stocks with low reputation risk and selling stocks with high reputation risk. Panel A shows the results of equal-weighted portfolios and Panel B shows the results of value-weighted portfolios. Portfolios are monthly adjusted based on sample period from February 2007 to August 2012. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the method.

4.7 Conclusion

In this study, I have investigated the influence of reputation risk on firm financial performance based on an extensive sample of worldwide companies. In compiling the different samples, I constructed portfolios using three portfolio construction strategies: buy and hold portfolios, long-short portfolios and characteristic-matched portfolios. The main results suggest that high reputation risk portfolios perform worse than low reputation risk portfolios after controlling for countries, sectors, firm characteristics, different weighting methods and the removal of financial sectors. These findings imply that the stock market is concerned about corporate performance on ESG issues; however, it has failed to incorporate this information fully into stock prices. The findings provided some practical implications for investors: that it is profitable to apply long-short strategy in buying low reputation risk companies and selling high reputation risk companies.

In addition, the results support the idea that there are more significant differences in terms of abnormal returns between high and low reputation risk portfolios in developing countries than in developed countries, and that there are more significant differences in terms of abnormal returns between high and low reputation risk portfolios in non-financial sectors than in financial sectors. This suggests that investors are more likely to act on information pertaining to companies' levels of reputation risk in non-financial sectors and in developing countries. This chapter contributes towards understanding the variations of CSiR across developed and developing country contexts, financial and non-financial contexts in the long term.

There are a number of suggestions for further investigation. Firstly, many studies report that there are significant differences in the content of CSR reports between different countries (e.g., Maignan and Ralston, 2002; Chen and Bouvain, 2008), as well as marked differences between firms' policies on ethics, human rights, corporate governance and communications (Scholtens and Dam, 2007). It is not necessary, however, to indicate that the financial impact of irresponsible behaviour is also vastly different. This raises the question of whether or not there are differences in the economic consequences of CSiR behaviour between individual countries. Therefore,

it would be rewarding to consider culture and country-specific factors in the future CSiR studies.

Secondly, it should be noted that this study does not imply that firms' reputation risk profiles remain constant over various time periods. Indeed, although a firm's reputation risk levels can remain reasonably steady over many years, they are also liable to swing in either direction. Therefore, future studies should explore the literature on the consistency of firms' reputation risk profiles, and investigate the factors that motivate firms to change their attitude and behaviour over a long period of time.

Last but not least, although it is primarily the relationship between firms' levels of reputation risk and their financial performance that has been investigated in this chapter in relation to portfolios, it is worth examining this relationship from the perspective of the firms themselves. Companies differ vastly in their individual perception and understanding of reputation risk, and in their reactions to it. Some companies tend to keep their levels of reputation risk to a minimum, while other companies may expose themselves to reputation risks at an extreme level. If it is assumed that activities that pose a comparatively small risk to reputation – such as bribery or mild instances of corruption – can bring short-term economic benefits to business operations, it can also be expected that severe exposure to reputation risk will result in a reduction in shareholder value. Therefore, a thorough consideration of the benefits and drawbacks of reputation risk would make an interesting contribution to the existing corporate finance literature.

5 Corporate Social Irresponsibility: News

Characteristics, Investor Types, and Government

Pressure

Abstract

This chapter investigates the impact of corporate social irresponsibility (CSiR) behaviour on long-run shareholder value in China. Using an original and extensive dataset from RepRisk news database, the study builds calendar-time portfolios consisting of firms that are exposed to a wide range of CSiR issues and compares their financial performances between news coverage periods and no-news coverage periods. The results show that companies involved in corporate governance and product-related controversies suffer the most from shareholder value destruction. The results also reveal that stock prices outside news coverage periods can recover, which could be an advantage in adjusting investment strategy in different time periods. On further examination, the results suggest that the effects of CSiR on shareholder value are also contingent, since they are moderated by factors such as firm characteristics, investor types, news characteristics, and the market environments. Further examinations also reveal three interesting implications. Firstly, local investors care more about CSiR issues than foreign investors. Secondly, news reported in higher rated news characteristics including severity, novelty, source reach, and language leading to lower abnormal returns. Thirdly, the Chinese stock market is indirectly affected by the legitimacy and government pressure. The results of this study are robust by controlling different weighting methods, company sizes, various regression models, and sub-sample periods.

Keywords: A shares, Chinese stock market, corporate financial performance, corporate social irresponsibility, environmental, social and governance (ESG)

‘[The extreme cases of irresponsibility focus] where great harm is caused to the system, and where almost all unbiased observers are in agreement that an irresponsible act has occurred’ (Armstrong, 1977: 185).

5.1 Introduction

Firms not only do good things but also do bad things and they can act socially responsibly and socially irresponsibly at the same time (e.g., Fombrun, Gardberg and Barnett, 2000; Strike, Gao and Bansal, 2006; Muller and Kraussl, 2011; Oikonomou, Brooks and Pavelin, 2014b). An extreme example is Enron, the Texas energy company, which gave donations to society and won awards for its excellent performance on social responsibility, but it brought itself down by its involvement in a massive corporate accounting scandal in 2001. In the past decade, there have been numerous examples of socially irresponsible behaviour in China that have received considerable attention, such as the melamine contamination incident in 2008, the Foxconn suicides in 2010 and several other food safety incidents over the past decade. Despite the considerable amount of attention paid to CSR, a contrary question remains unclear: does CSiR behaviour impact long-term shareholder value and, if so, on what scale?

CSiR has been considered as the opposite side of the coin to CSR (e.g., Jones, Bowd and Tench, 2009; Muller and Kraussl, 2011; Pearce and Manz, 2011; Lange and Washburn, 2012). Wood (1991) states that CSR follows the principles of legitimacy, public responsibility and managerial discretion; therefore, any corporate actions that violate those principles may be considered to be CSiR behaviour. Although there is no consensus on the definition of CSiR, Strike, Gao and Bansal (2006: 852) consider it to be ‘corporate actions that negatively impact an identifiable social stakeholder’s legitimate claims in the long term’.

CSR behaviour does not directly influence share price because CSR affects CFP firstly through its impact on the main stakeholders (Barnett, 2007). CSiR follows a similar logic, in that it damages the trustworthiness of the firm, and so weakens relationships with relevant stakeholders, which, in turn undermines the share price. CSiR can lead to reputation damage (e.g., Friedman, 1970; Brammer and Pavelin, 2006; Karpoff, Lee

and Martin, 2008), and even if a firm survives a scandal, the adverse effects may still influence its stakeholder relationships. Mullen (1997) argues that companies need to engage in a CSR program for at least three to five years to see some benefit. Once companies have engaged in harmful activities, they destroy their trustworthiness with stakeholders and the damaged relationships will take a long time to repair. Hence, both CSR and CSiR should be considered as intangible assets that impact on financial performance in the long term.

Previous studies have shown that firms engaging in a single aspect of CSiR behaviour, such as environmental pollution or bribery, significantly reduced shareholder value (e.g., Khanna, Quimio and Bojilova, 1998; Gupta and Goldar, 2005; Karpoff, Lott and Wehrly, 2005; Tipton, Bharadwaj and Robertson, 2009). Given that CSR is ‘a broad construct’, it should be evaluated with multidimensional criteria (Guenster et al., 2011: 684). However, only a limited number of studies have linked CSiR-CFP in a multidimensional setting (e.g., Strike, Gao and Bansal, 2006; Kotchen and Moon, 2012; Groening and Kanuri, 2013; Oikonomou, Brooks and Pavelin, 2014b).

One common point of these studies is that the authors mix CSR with CSiR and they all use the MSCI acquired Kinder, Lydenberg and Domini (KLD) data. Strike, Gao and Bansal (2006: 860) note that KLD is limited in that particular items are not working well on corresponding screens and call for a sounder measurement of CSR and CSiR. Moreover, combining positive and negative indicators in the same study could hide any ‘countervailing effects’ on the dependent variable unless their convergence is demonstrated empirically (Mattingly and Berman, 2006: 38). Also, the limitation of the previous studies is that they focused primarily on either the short term or on developed markets (e.g., Brammer and Pavelin, 2006; Kempf and Osthoff, 2007; Kruger, 2015). Therefore, a thorough understanding of the relationship between CSiR and CFP is still lacking since comprehensive CSiR data have rarely been analysed in the context of emerging markets, possibly because of both the unavailability of suitable international data and the complex nature of irresponsibility issues.

I consider China as an ideal and unique candidate for research purposes, because of all the many regions of the developing world, it has maintained a fast pace of economic growth whilst lagging far behind in sustainable development. For instance, Lin (2010) considered China to be an awkward case in terms of CSR development because of its

infamous sweatshops and environmental pollution problems. Also, as the world's largest emerging country, China is different from the West in cultural and political structures; consequently it is understandable that its view of CSR is also different (Gao, 2008). By focusing on Chinese companies, this chapter can distinguish between a firm's share listings targeted at local investors as opposed to foreign investors, where the former receives better information on CSiR issues, and the latter has limited access to information due to governmental media control. Alongside the investor types, the moderators of the impact of CSiR issues, such as characteristics of the reported CSiR issues and government influence, have received little attention in previous studies.

Assuming that these factors are likely to affect the magnitude of financial impact, this study considers news characteristics including novelty, severity, source reach, and language of the news, investor types including local and foreign investors and Chinese government concerns in the portfolio construction process. Due to the news characteristics, the complexity of impact factors, environment conditions, measuring the accurate long-term impact of news coverage is likely to be difficult. This creates an extra challenge for analysing companies' non-financial information as there are no consistent conclusions as to whether CSiR can lead to damaged stock performance. This research attempts to provide the first thorough analysis of the multi-dimensions of CSiR activities in China in order to reveal whether and to what extent investors react to CSiR issues, and to broaden the understanding of the distinctive features of local and foreign investors, the characteristics of news, and the Chinese government pressure.

The contributions of this study are threefold. Firstly, by conducting a multidimensional analysis of CSiR activities, it provides additional evidence on the long-term financial impacts. Because CSiR issues are intangibles, and therefore not readily quantifiable, information will take longer to be absorbed in share prices (Edmans, 2011). In cases where response time is longer than the estimated window periods, I employ a calendar-time portfolio approach in order to test how variations in the dimensions and characteristics of CSiR issues affect CFP in the long term. The core results suggest that companies engaging in various CSiR issues have been penalised to varying degrees regarding their financial performance. Specifically, I find that firms involved in poor corporate governance and product-related practices are subject to the highest

financial performance penalties when compared with the appropriate benchmarks while controlling for other investment styles. I further investigate whether the financial penalty varies with the characteristics of the CSiR news. I find that less severe irresponsible behaviour can have a shorter financial impact while more severe irresponsible behaviour can have a longer financial impact.

Secondly, building on the calendar-time portfolio approach developed by Jegadeesh and Titman (1993) and Fama (1998), I propose a modified way to measure news media impact by comparing the difference between news coverage periods and no-news coverage periods. This approach not only allows for the examination of the post-news period of firms that have exercised poor CSR practices, but it also tests whether companies can recover beyond news coverage periods. Previous research has mainly focused on the time period after the news, but it has neglected the time periods when the news had not highly influenced share prices (Chan 2003; Khotari and Warner 2006). In the absence of additional tangible and intangible information, I compare each company with itself at news coverage periods and no-news coverage periods. I find that although CSiR behaviour can penalise firms' shareholder value, the value can be recovered after a certain period of news coverage, it might have been due to the firm's share has been low enough to be a bargain price, or the company has regained their reputation to a certain extent.

Thirdly, the research contributes to the CSiR literature by differentiating domestic and foreign investors with respect to potentially different information environments. The results suggest that firms' shares targeted at local investors receive significant negative returns while shares with high foreign investor ownership may easily escape financial penalty of engaged in CSiR issues. This particular finding highlights the potential differences between domestic investors and foreign investors in their perceptions of and response to CSiR issues.

In the next section, I briefly review the literature that has investigated the relationship between CSiR and CFP, and highlight the role of investors, the characteristics of news and the effect of government pressure. I then describe the data source in the data section, explain the details of portfolio construction and regression model in the method section. In the section that follows, I present the empirical results and the robustness tests. The last section concludes.

5.2 Prior literature and hypothesis development

This section firstly reviews the financial impact of CSiR news coverage, followed by a discussion of investor types including local investor and foreign investors. In consideration of the news characteristics including severity, novelty, source research and language, this section also outlines the moderating role of Chinese government in shaping investors' views on CSiR issues.

5.2.1 The financial impact of CSiR news coverage

The comparative understanding of CSiR draws on the theories of CSR since this subject has been extensively studied since the early 1970s, and CSR studies provide strong theoretical foundations and rigorous research methodologies (Barnett, 2007). The existing literature refers to CSR as a positive indicator leading to positive stakeholder actions and CSiR as an adverse indicator causing negative stakeholder actions (e.g., Godfrey, Merrill and Hansen, 2009; Wood, 2010; Groening and Kanuri, 2013). Stressing the differences between CSR and CSiR can help to better understand CSiR since it is often neglected in the theorising process (Jones, Bowd and Tench, 2009). For instance, compared to CSR, CSiR is likely to have a greater capacity for observer reactions (e.g., Frooman, 1997; Matten and Moon, 2008) and is very prone to character judgments (Oikonomou, Brooks and Pavelin, 2014b). This is because people tend to spend more time thinking about negative behaviour and its cause than positive or neutral action, hence there is a significant asymmetry between the perception of positive and negative news. The magnitude of the impact of socially irresponsible practice should be stronger than socially responsible actions (Lange and Washburn, 2012).

Apart from the studies that have examined the relationship between overall CSR performance and CFP (e.g., Waddock and Graves, 1997; McWilliams and Siegel, 2000; Barnett and Salomon, 2006; Barnett and Salomon, 2012), other studies have investigated the relationship between corporate environmental performance and CFP (e.g., Russo and Fouts, 1997; Derwall et al., 2005; Kim and Statman, 2011), and corporate governance performance and CFP (e.g., Gompers, Ishii and Metrick, 2003; Spellman and Watson, 2009; Shan and McIver, 2011). The results of the aforementioned studies, however, prove to be largely ambiguous or mixed, partly due

to the 'unique and dynamic characteristics of the firm and their environments' (Barnett, 2007: 795) and partly because of the various different methodologies adopted, such as in their application of data ranges, markets, variables and regression methods.

Compared to CSR studies, however, a less ambiguous relationship has been revealed between CSiR and shareholder value. Socially responsible behaviour is not in itself all that is needed to improve financial performance, whereas, socially irresponsible behaviour impacts significantly on shareholder value (Frooman, 1997). Also, as pointed out by Wood (2010), the relationship between poor CSP and CFP is clear and consistently negative, after a review of some earlier event studies using product recalls to measure bad CSP. In order to measure CSiR, these event studies commonly use certain event types – such as fraud and other legal violations, neglecting standards, product recalls, tax evasion, and causing pollution.

Several other studies have reported that firms' financial returns are negatively related to environmentally unfriendly news (e.g., Khanna, Quimio and Bojilova, 1998; Gupta and Goldar, 2005). After examining 478 environmental violations by publicly traded companies between 1980 and 2000, Karpoff, Lott and Wehrly (2005) find that firms violating environmental regulations suffer statistically significant losses in share values. In terms of corporate governance performance, Lee and Ng (2006) use firm-level data from 44 countries to investigate the relationship between corruption and firm value, and show that both elements to be statistically significant. Gompers, Ishii and Metrick (2003) who provide a proxy for the level of shareholder rights in 1500 firms, find that a strong shareholder rights portfolio significantly outperforms a weak shareholder rights portfolio by 8.5% per year. Karpoff, Lee and Martin (2009) report that firms involved in foreign bribery experience significant loss of share values amounting to 4.99%.

A limited number of relevant studies have linked CSiR and CFP in multi-dimensions. Strike, Gao and Bansal (2006) examine the relationship between international diversification and social responsibility, and argue that the construct of social responsibility should combine both CSR and CSiR activities, due to firms acting socially responsibly for creating value but also destroying it by acting irresponsibly. Similarly, Kotchen and Moon (2012) find that firms can do good and also do harm, and they take a different angle by testing CSR as an insurance protection to offset CSiR.

They find that CSiR actually leads to an increase in CSR, meaning that firms engage in more responsible activities in order to minimise the negative effect of CSiR. Groening and Kanuri (2013) apply a short-term event study method to measure investor reaction to the firm-specific incidents in the KLD dataset. The results reveal that only 12% of the CSR-related corporate actions have significant short-term investor reactions, and 52.1% of the stock returns are congruent. The study notes that investing in CSR is not always beneficial, and engaging in CSiR is not always detrimental. More recently, Oikonomou, Brooks and Pavelin (2014b) provide a mixed picture of positive and negative CSP, and suggest that firms with a uniformly positive or uniformly negative social performance performs better than companies that projected mixed images.

Judging by the above, the evidence shows that, by engaging in CSiR activities, firms can suffer several negative consequences, such as bad stakeholder relationships (Frooman, 1997; Jones, Bowd and Tench, 2009), lower financial performance (Barnett and Salomon, 2006), higher explicit costs (Waddock and Graves, 1997), and tarnished reputation (Friedman, 1970; Brammer and Pavelin, 2006; Karpoff, Lee and Martin, 2008). The reputational penalty for financial misrepresentation, which is measured as the expected loss in the present value of future cash flows, is 7.5 times the sum of penalties imposed by the legal and regulatory authorities (Karpoff, Lee and Martin, 2008). Because firms' stakeholder relations determine CFP, their behaviour in terms of CSiR activities will eventually affect their financial performances; hence, such activities may cause adverse impacts because they impact directly on stakeholders, who can refuse to buy their products, be unwilling to continue to work for the firm or decline to purchase shares. Due to such damaged stakeholder relationships and corporate reputations, firms engage in negative behaviour are likely to generate lower financial performance in the long term. For these reasons, I predict:

Hypothesis 1: Firms that engage in CSiR behaviour will receive financial penalties in the long term.

5.2.2 Investor types

CSiR diminishes CFP by firstly damaging relationships with the key stakeholders, in direct contrast to Barnett (2007: 799) contention that 'CSR improves CFP by first

improving relationships with key stakeholders'. Many Chinese companies are cross-listed with at least two types of shares with different purposes. Based on institutional theory, Matten and Moon (2008) argue that stakeholders' interests and CSR differs from country to country; hence, it is difficult to measure the differences between China and other countries. However, it allows for an opportunity to discover the differences between A shares, which are mainly targeted at local investors, and B shares and H shares, which are aimed at foreign investors. As Gul, Kim and Qiu (2010: 426) observed, differences between share classes suggest that such 'institutional features provide a unique opportunity to examine the impact of foreign ownership on the flow of firm-specific information to outside investors, and to investigate whether this effect differs systematically with the institutional infrastructure of the market on which foreign shares are traded'.

Although companies with CSiR issues are expected to have reduced shareholder value, I hypothesise that this would vary according to particular CSiR matters that are common to local Chinese investors or typical foreign investors. Husted and Allen (2006) argue that there is a difference between local and global CSR in that a local firm should obey local standards while an international firm's behaviour should follow universal standards. Owing to the socio-political context of the country, foreign investors gain less information about negative issues than do domestic investors; hence the reasons why local investors are more concerned about CSiR issues than foreign investors is that, (i) they have better access to firm-specific information (Hau, 2001), (ii) they hold a cumulative information advantage (Brennan and Cao, 1997), (iii) local press coverage significantly increases local trading volume (Engelberg and Parsons, 2011). Since local investors could be provided with wider media coverage, and would overreact to negative information, the degree of information asymmetry may explain a significant portion of the penalty difference for the same firm's behaviour of domestic listed stocks and cross-listed stocks. For these reasons, I predict:

Hypothesis 2: Local investors care more about CSiR issues than foreign investors.

5.2.3 News characteristics

Understanding the characteristics of negative news is crucial in order to identify the impact of an event on financial performance, since the indirect costs, such as reputation

loss, can vary significantly depending on how the news is reported (Tipton, Bharadwaj and Robertson, 2009). Tipton, Bharadwaj and Robertson (2009) identify some factors can contribute to the heterogeneity in the magnitude of indirect costs caused by negative marketing-related events, and find that event characteristics are more significant than firm and brand characteristics. In this study, therefore, I assume that the magnitude of the impact of CSiR issues will depend on its severity, novelty, source, and language reporting of the issues.

The degree of severity of an event is a measure of its gravity as reported by the media if there has been a violation of international standards. Firstly, it is a reflection of the type of incident or accusation, secondly it is dependent on the event's geographical extent, and thirdly what consequences it might have for the environment or for people. An example, provided by Karpoff, Lott and Wehrly (2005) show that a firms' market value losses, due to a violation of environmental regulations, are similar to the magnitude of the size of legal penalties. Similarly, Goldman, Peyer and Stefanescu (2012), who examine the impact of the accusation of fraudulent financial misrepresentation on rivals in competitive industries, conclude that spillover effect is commensurate to the seriousness of the offence. Therefore, the severity level of a CSiR event may behave as the actor of the impact since an extremely serious incident is likely to be reported more widely; furthermore, it is likely to be translated into both the local language and also into foreign languages. I expect that the higher severity level of CSiR incidents would result in a greater financial loss.

Novelty rating describes how new and thus salient the presented news on a given topic is, and whether the company, project or government has been criticised on this topic before. News is identified by whether a similar event has been reported previously; hence, there is a substantial difference between old and new news, since investors are likely to treat new information and old information differently (Boudoukh et al., 2013). For instance, Tetlock (2011) finds that firms' stock returns respond less to stale news and that individual investors tend to trade more aggressively on stale news. A new accusation against a company would generate more market interest; therefore, the market interest would increase the coverage and depth of the news reporting. Consequently, news at higher novelty level, as reflected in companies with more CSiR actions, are expected to incur higher financial penalties.

Source rating is a measure of the influence of the source of an incident and how it correlates with its level of importance both in the industry concerned and with the global importance of its location. A higher source rating suggests a widely circulated news source, hence wider media coverage. Fang and Peress (2009: 2023) state that ‘mass media outlets, such as newspapers, play an important role in disseminating information to a broad audience, especially to individual investors’. Newspapers tend to report more negative news than positive news because negative news creates wider readership and generate more profits. Greater press coverage leads to reduced information asymmetry, larger stock price and trading volume, reductions in bid-ask spreads and improvements in depth (Bushee et al., 2010). Several studies prove that firms with higher media coverage lead to lower future returns (e.g., Fang and Peress, 2009; Gong and Gul, 2011). Firms’ negative behaviour reported by highly influential media sources may reach a wider and more important audience, and thus generate greater influence.

Language differences in news reporting also have an impact on the aftermath of CSiR activities. Although language translation services are widely available, local investors are likely to focus more on news reported in the local languages, to which they will have easier access than foreign investors. Investors prefer to trade stocks of firms that communicate in the local language (Grinblatt and Keloharju, 2001). Although many Chinese investors read both Chinese and English news, reportage in other languages is less popular. On this basis, foreign share discount is significantly higher among firms that receive more Chinese than English media coverage (Cumming et al., 2013). Engelberg and Parsons (2011), who examine all earnings announcements of S&P500 Index firms, find that, after controlling for earnings, investor, and newspaper characteristics, local media coverage predicts local trading, and local press coverage increases the daily trading volume. On the condition that the reporting languages influence the effect of CSiR issues, I suppose the impact to be stronger in local language news than foreign language news since local language reporting should reach a wider readership and attach higher news impact.

Hypothesis 3: Firms involved in higher rated characteristic level of news coverage will result in a greater financial loss.

5.2.4 Government pressure

Social, market and legitimate factors play a major role in shaping investors' views on CSiR issues, not just to encourage responsible business behaviour but also to urge government action regarding law enforcement and remedial actions. The government passes laws and regulations to restrict irresponsible corporate behaviour, however, although its attention to CSiR is dynamic, it is also indirect due to the complexity of issues and its limitation power of direct action of the government, which also suggests a restricted role for government on CSiR matters. Contrary to the regulatory mission of government power, the government can serve as an enabling and empowering facilitator for social development. Building on institutional theory, government influence the investment decisions by majorly contributing to social pressure (Baron, Harjoto and Jo, 2011) and governance environment (Li and Filer, 2007). However, beyond its role of enacting laws and regulations, does government pressure actually play a role in judging a firm's irresponsible behaviour and is it enough to influence investor's investment decisions?

Government can significantly influences corporate behaviour by encouraging CSR (Vallentin, 2013). In spite of its range of laws and regulations, the government has a restricted role in restricting CSiR, however, contrary to the regulatory mission of government power, it does serve as an enabling and empowering facilitator for social development (Vallentin and Murillo, 2012). Also, Baron, Harjoto and Jo (2011) point out that CSR and CFP are jointly determined by companies within three types of markets: the product market, capital market, and market for social pressure which mainly comes from governments, NGOs, and social activists.

When analysing the impact of CSiR issues, I connect the four key features of historically grown national institutional frameworks developed by Whitley (1999), which the analysis process should take into account the specific conditions of the political system, financial markets, education and labour system, and culture system. Compared with other systems, the political system is the most important category of institutions that impact corporate social performance (Ioannou and Serafeim, 2012). Government plays a role in protecting and warning investors, although to a lesser extent. Compared with the US stock market, Chinese stock market is characterised by weaker investor protection, stronger political influence on both listed companies and

the media (Gong and Gul, 2011). Since the government influence in China is comparably stronger than other developed markets, the political system should be an important factor in the issues analysis process.

Campbell (2007: 962) suggests that ‘corporations are more likely to act in socially responsible ways the more they encounter strong state regulation, collective industrial self-regulation, NGOs, and other independent organisations that monitor them, and a normative institutional environment that encourages socially responsible behaviour’. On the other hand, the violation of government regulations can diminish firms’ reputations (Williams and Barrett, 2000). Social pressure comes from the government, which can directly affect a firm’s financial performance by driving some investors away or by influencing its reputation and brand equity (Baron, Harjoto and Jo, 2011). Hence, a firm involved in CSiR issues can be potentially penalised more heavily if the government publishes more relevant announcements or enacts stricter laws, rules, standards and regulatory documents.

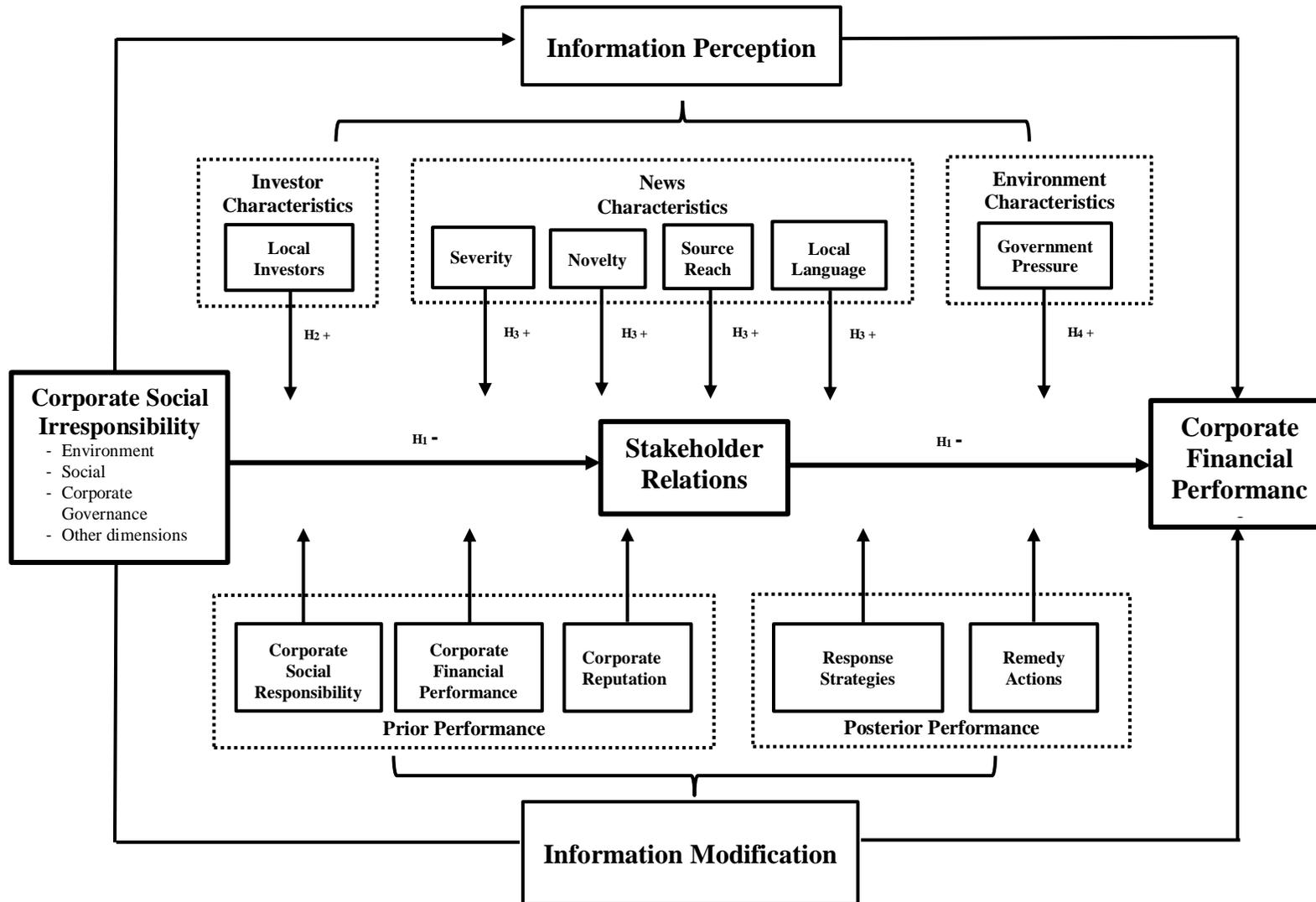
Hypothesis 4: Firms involved in CSiR issues will be penalised more if there are more relevant governmental announcements and regulations.

As discussed above, the consideration of investor types, news characteristics and government pressure for investigating the impact of CSiR on shareholder value is illustrated in Figure 5.1. While both CSR and CSiR are considerably broad concepts regarding how to measure in a precise scale, environment, social and governance (ESG) dimensions have been the most utilised CSR metrics in previous studies (e.g., S. Brammer et al. 2006; Barnett and Salomon 2012; Oikonomou et al. 2014). CSiR diminishes shareholder value by firstly damaging relationships with the key stakeholders, in direct contrast to Barnett (2007: 799) contention that “CSR improves CFP by first improving relationships with key stakeholders”.

As noted above, although companies with CSiR issues are expected to reduce shareholder value, I hypothesize that such reduced value is likely to vary according to a particular CSiR issues that are common to local Chinese investors or typical foreign responsible investors. Therefore, I add the investor characteristics as the moderating factor in the shareholder’s decision making process. Understanding the characteristics of negative news is crucial in order to identify the impact of an event on financial

performance, since the indirect costs, such as reputation loss, can vary significantly depending on how the news is reported (Tipton, Bharadwaj and Robertson, 2009). As I hypothesize that the magnitude of impact of CSiR issues will depend on its severity, novelty, source reach and language reporting of the issues. I add the news characteristics as the moderating role in the stakeholder's information perception process. In addition, I hypothesize that corporations involved in CSiR issues are more likely to be punished in financial returns the more they encounter stronger government pressure. Therefore, government pressure has been considered as one of the environment characteristics.

Figure 5.1 Theoretical framework of CSiR



5.3 Data and sample selection

5.3.1 Main data source

To date, ESG dimensions have been the most utilised CSR metrics in previous studies (e.g., Brammer, Brooks and Pavelin, 2006; Barnett and Salomon, 2012; Oikonomou, Brooks and Pavelin, 2014b). The connection between CSR and ESG is reflected in the UN Principles for Responsible Investing (UNPRI), which encourages investors to integrate ESG factors into the investment decision process. The boundaries of the various dimensions of CSR are still blurred; however, I can apply other indicators to measure CSR, and I argue that some dimensions, such as environmental and governance activities, are in the ‘social’ category.

In Chapter 3, I provided substantial details of the RepRisk database, and gave the reasons that I believe it to be the most comprehensive and trustworthy source of CSiR for this thesis. Since I use different parts of this dataset in the empirical chapters, I will restate it for this chapter. In order to measure CSiR performance, I obtained the primary data from RepRisk.⁸ Based on 27 specific issues covered by RepRisk, Table 5.1 shows the eight single dimensions of issues considered in this study: environment, social, corporate governance, community relations, employee relations, product, violation of codes and supply chain.⁹ Please note, the ‘social’ dimension, which combines ‘community relations’ and ‘employee relations’, are proxies for specific social performance criteria; also, I examine separately the dimensions of ‘community relations’ and ‘employee relations’ and I form a portfolio containing all aspects of dimensions in order to analyse the overall performance of CSiR issues.

⁸ RepRisk is a web-based tool that monitors companies and projects' exposure on ESG risks. RepRisk screens thousands of sources including all major print media, NGOs, newsletters, news websites, governmental agencies and blogs. Its database can be accessed at: <http://www.reprisk.com/>.

⁹ The issues listed by RepRisk are evaluated on international standards, such as the Universal Declaration of Human Rights, the Equator Principles and the UN Global Compact Principle. A full list of international standards used in the RepRisk database can be found at: www.reprisk.com/repriskscope/. RepRisk covers 27 specific research scopes, mainly in the ESG category. In a later stage, RepRisk adds the research scope ‘tax optimisation’ into the governance category; therefore, it contains 28 types of research scopes.

The RepRisk dataset consists of two main parts: the RepRisk news data and the RepRisk Index (RRI). Since the index data can measure the overall risks and cannot track the influence of the particular type of issues to a company, I only use news data of the Chinese listed companies in the RepRisk dataset. The news data derives from the news information provided by independent third parties, including international and local media, government sites, NGOs, newsletters, social media and blogs. Once companies are involved in negative issues and are consequently exposed, RepRisk records the date, company information, source name, issue type, severity rating, novelty rating, and source reach rating in its database.¹⁰ Please note that incidents are entered into the database according to the date displayed on the news source, rather than the date when the incidents occurred. This is inevitable because of the lag effect of news reporting. Measuring the short-term effect of news coverage is debatable because there are possibly contamination issues during the short-event window if multiple new reports appear for the same company. Below are details of how the database records issues characteristics.

¹⁰ Please note that due to the lag effect of news reporting, issues are entered into the database according to the date showed on the news source, rather than the date when the events happened in the company.

Table 5.1 CSiR dimensions in the RepRisk database

Dimensions	Issues
Environment	Global pollution and climate change
	Local pollution
	Impacts on ecosystems and landscapes
	Overuse and wasting of resources
	Waste issues
Social	Animal mistreatment
	Forced labor
	Child labor
	Freedom of association and collective bargaining
	Discrimination in employment
	Health and safety issues
	Poor employment conditions
	Human rights abuses, corporate complicity
	Impacts on communities
	Local participation issues
Social discrimination	
Corporate governance	Corruption, bribery, extortion, money laundering
	Executive compensation
	Misleading communication
	Fraud
	Tax evasion
Community relations	Anti-competitive practices
	Human rights abuses, corporate complicity
	Impacts on communities
	Local participation issues
Employee relations	Social discrimination
	Forced labor
	Child labor
	Freedom of association and collect bargaining
	Discrimination in employment
	Health and safety issues
Poor employment conditions	
Product	Controversial products and services
	Product-related health and environmental issues
Violation of codes	Violation of international standards
	Violation of national legislation
Supply chain	Supply chain (environmental, social, and legal issues)

Note: This table presents the CSiR dimensions covered in the RepRisk database. The first column shows the categories of issues applied in the portfolio and the second column details the issues in the specific category. The social dimension combines both community relationships dimension and employee relations dimension. All principles of the UN Global Compact are addressed.

As the name suggests, severity rating indicates the level of severity of an incident or an accusation regarding the violation of international standards. Firstly, it reflects the type of incident or accusation; secondly, its extent, and thirdly its consequences for the environment or people. RepRisk uses a score of ‘1’, ‘2’, and ‘3’ to represent low severity, medium severity, and high severity, respectively.

The novelty rating describes how new and thus salient the presented news on a given topic is, and whether the company, project or government has been criticised on this topic before. RepRisk uses a score of ‘1’ to indicate that the firm has been criticised on this story before, and uses a score of ‘2’ to show that there is a new accusation for one of the companies linked to the database.

The source reach rating is a measure of the influence of the source. The higher the rating the more influential with the public and decision-makers the source is. The reach thus correlates with the source’s importance in the industry and the global importance of its location. RepRisk uses a score of ‘1’, ‘2’, and ‘3’ to indicate that the news is reported by local media (or national NGO), national-level media (or major NGO), and international source (or top source), respectively.

Since RepRisk data provide the name of the news source, but does not contain information about the language of the source, I search for the language provided by the news source on the internet. A score of ‘1’ indicates the news source is in a non-Chinese language, which includes English or any other type of language all over the world, a score of ‘2’ indicates that the source is only in Chinese and a score of ‘3’ indicates that it is in both Chinese and English.

In the sample, I consider all Chinese listed companies with news records in the RepRisk database during the sample period from June 2006 to July 2012.¹¹ In the original search, I start with 1,786 Chinese companies with recorded news, of which a large proportion are unlisted companies. To be included in the final sample, the news data has to satisfy three conditions. Firstly, Chinese companies are publicly listed and have financial data available during the sample period. To avoid the effect of survival bias, I do not exclude firms that had not survived in the sample period. Also, I exclude

¹¹ Note that the RepRisk news data is available several months earlier than the RepRisk Index data.

other types of assets from the sample: American Depositary Receipts (ADRs), shares listed outside of Mainland China and Hong Kong, and shares listed by state-owned companies. Secondly, Chinese companies must have a distinct share class status and are registered as either A shares or cross-listed companies containing two share classes. Third, the news must only be recorded once in one of the news sources, which means that I exclude multi-news entries in the sample.

The final sample comprises 195 A shares, of which 60 are cross-listed companies during the period from June 2006 to July 2012. In this sample, the 60 cross-listed companies have two stock exchange listings: one listing is A share, and the other listing is either B share or H share (we refer them collectively as ‘non-A share’). A shares are shares denominated in Chinese Yuan and listed on either the Shenzhen Stock Exchange or Shanghai Stock Exchange. B shares are foreign investor targeted stocks that are listed to attract foreign capital. B shares are listed on the Shanghai or Shenzhen Stock Exchange, which are respectively traded in US and Hong Kong dollars. H shares are shares listed on the Hong Kong Stock Exchange market. The main difference between A shares and non-A shares is their targeted investors. Only domestic Mainland Chinese investors and qualified foreign institutional investors (QFII) are allowed to trade in A shares while non-A shares mainly target international investors.

Table 5.2 provides the sample distribution for the entire sample. Panel A shows the number of news and issues considered in each year. It is important to note that a single news coverage may involve several companies and also violations of several different types of issues. If a company is reported by multiple news sources, we only count this as one piece of news to avoid multiple entries in the sample. In the final sample, 651 pieces of news and 1,445 issues are considered. Table 5.2 also shows that fewer news items are available in 2006. I begin the sample period in June 2006 because I focus on long-run stock returns and that is the earliest year when news is available. Panel B reports the sample distribution of 195 Chinese companies across various sectors. The industry classification is based on Fama and French (1997) 48 industry classification. Three sectors – chemicals, construction materials and banking – comprise a significant proportion of the total sample companies, although the remaining sectors are also widely distributed.

Table 5.2 Sample distribution

<i>Panel A: Sample distribution across years</i>		
Year	Number of News	Number of Issues
2006	9	18
2007	84	147
2008	113	236
2009	101	247
2010	112	274
2011	139	320
2012	93	203
Total	651	1445

<i>Panel B: Sample distribution across sectors</i>		
Industry Code	Industry Categories	Count
2	Food Products	12
9	Consumer Goods	14
13	Pharmaceutical Products	11
14	Chemicals	22
17	Construction Materials	18
19	Steel Works Etc.	17
21	Machinery	5
22	Electrical Equipment	3
23	Automobiles and Trucks	5
28	Non-Metallic and Industrial Metal Mining	17
30	Petroleum and Natural Gas	3
31	Utilities	11
34	Business Services	15
38	Business Supplies	3
40	Transportation	6
42	Retail	4
44	Banking	22
45	Insurance	2
48	Other	5
	Total	195

Note: Panel A reports the number of news and number of issues considered in each year of the whole sample period from June 2006 to July 2007. Please note that one single news may involve several companies and several different types of issues. There are 651 news and 1445 issues in the final sample. Panel B shows the sample distribution of 195 Chinese companies across sectors. Although this study consists of dual-listed companies, this table provides information for companies only. The industry classification based on the Fama and French (1997) 48-industry classification.

5.3.2 Chinese government pressure index

The 27 ESG issues listed by RepRisk are evaluated based on international standards, such as the Universal Declaration of Human Rights, the Equator Principles and the UN Global Compact Principle.¹² None of these issues are specific to China, which should consider the unique conditions of government policy, economy development, and business environment in China. More specifically, this study concerns the priority issues for China when measured in terms of severity and the impact on environment and society. I investigate the Chinese government's response to CSiR issues and how these responses impact investors' choice of investment.

To assess government pressure and its impact on CSiR issues concerned portfolios, this study uses the daily number of publications, announcements, and news releases published by the State Council Information Office of the People's Republic of China (SCIO) and the State Internet Information Office of the People's Republic of China (SIIO).¹³ These are official government websites, established in January 1991 and May 2011, respectively. The SCIO is mainly responsible for activities including: (i) publishing internal and external guidelines and policies; (ii) reporting economic and social development conditions; (iii) publishing news about science and technology, education, culture, holding press conferences for audience about the situations, principles and policies; (iv) publishing government white paper to clarify the Chinese government policies on major issues. The SIIO focuses on implementing the principles and policies of internet information dissemination, organising and coordinating network news business, and supervision of relevant departments on news releases and web publication.

The sample used in this study is collected from the full history results of announcements on both SIIO and SCIO government websites. Since SIIO has not been established until May 2011, the majority of the collected data is taken from the SCIO website. The search results comprise all the data published by SCIO and SIIO, and each search result contains a headline and a brief introduction to the announcement.

¹² A full list of international standards have been used in RepRisk database can be found at: <http://www.reprisk.com/repriskscope/>.

¹³ The website can be accessed at: www.scio.gov.cn.

The first step of collecting the government data is to use software Teleport Ultra in order to download all published announcements. As the collected data are in HTML format, this study uses the software PDF Converter Enterprise 7.0 to convert them all to PDF files, it then uses the software Solid Converter PDF to convert all the PDF files to XLSX format in Microsoft Excel. The data is then sorted according to publication dates; also, all duplicated publications are deleted. The final sample, which contains daily publications ranging from January 1999 to October 2011, comprising of a total of 79,891 headlines with abstracts in Chinese.

The second step involves using a content analysis method to investigate how the government responded to CSiR issues. Since all the publications and news releases are in Chinese, I firstly translate all 27 scopes of RepRisk identified issues into Chinese. Secondly, due to the complexity of the issues and language differences, each type of issue in English are translated into a series of relevant Chinese issues. For instance, 'global pollution and climate change' are translated into corresponding Chinese terms of 'global pollution', 'global climate change', 'climate change', 'global warming', 'global temperature warming', 'global temperature increasing', 'global temperature rising', and 'climate variation', respectively.

The third step is to count each Chinese translated terms used in all the collected data. For this study, '1' is used where the Chinese translated terms exist in the announcements, and '0' is used to represent where it does not exist. To avoid duplication, I only count each government announcement once for each specific issue. For instance, if the Chinese terms 'global pollution' and 'climate change' both exist in one government announcement, then I assume that the issue type of 'global pollution and climate change' existed only once in the government database.

The fourth and final step are, after calculating the total counts of all 27 ESG issues, the issues are ranked according to the number of counts (see Table 5.3). If the number of counts is high, it means that a particular issue is more concerned with the government. I classify the 27 issues into three categories: high-rated issues, middle-rated issues, and low-rate issues.

Table 5.3 Severity rankings of CSiR issues

Category	CSiR issues	Count	Ranking
High-rated issues	Violation of national legislation	1628	1
	Local pollution	444	2
	Corruption, bribery, extortion, money laundering	357	3
	Product-related health and environmental issues	354	4
	Impacts on ecosystems and landscapes	271	5
	Fraud	162	6
	Health and safety issues	128	7
	Misleading communication	114	8
	Poor employment conditions	110	9
Middle-rated issues	Child labor	90	10
	Forced labor	85	11
	Global pollution and climate change	63	12
	Animal mistreatment	49	13
	Discrimination in employment	46	14
	Anti-competitive practices	45	15
	Impacts on communities	43	16
	Waste issues	39	17
Low-rated issues	Human rights abuses, corporate complicity	27	18
	Overuse and wasting of resources	16	19
	Controversial products and services	11	20
	Social discrimination	9	21
	Tax evasion	9	21
	Supply chain	9	21
	Violation of international standards	4	24
	Executive compensation	3	25
	Freedom of association and collective bargaining	2	26
	Local participation issues	2	26

Note: The table presents the number of counts and ranking of Chinese government concerned CSiR issues. The first and the second column show the three groups of issues divided by the number of counts. The third column presents the number of counts of the specific issue. The fourth column details the ranking based on counts. Further details on the comparison of highly concerned ESG issues from industry reports and RepRisk dimensions can be found in the Appendix 5A.

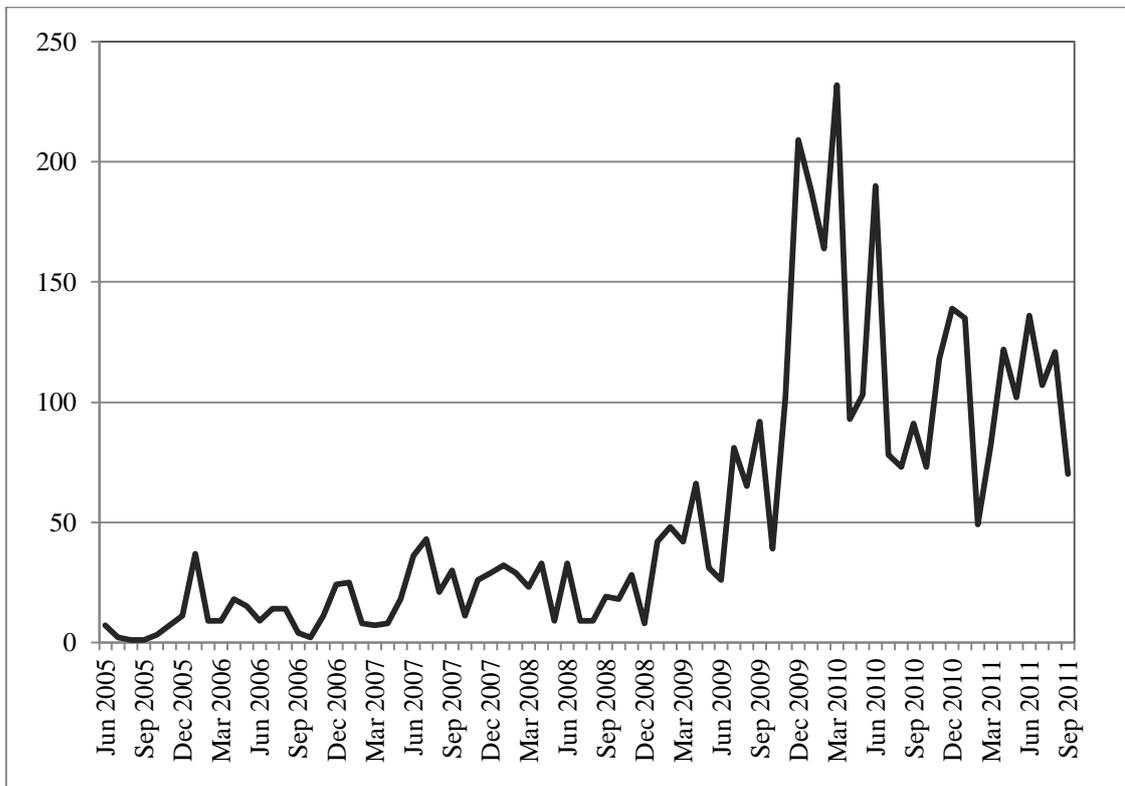
I also arrange the government data into monthly time series. Figure 5.2 shows the number of government announcements that are related to ESG issues from June 2005 to September 2011; it also shows that the number of government announcements on ESG issues increased substantially during the sample period. The number of announcements reached a peak between 2009 and 2010, and remained at high levels after 2010. The reason for choosing one year ahead of the sample period is to see how much power government announcements have in the current month in relation to the previous twelve months.

I restructure the government index data based on the following equation, which is a measurement of government power for the relevant month compared to the previous twelve months.

$$GP1 = \frac{12x_i}{\sum_{n=1}^{12} x_{i-n}}$$

x_i indicates the number of announcements in the month of i . The unit-root tests indicate this equation is stationary.

Figure 5.2 Monthly frequency of the government announcements



5.4 Methodology

5.4.1 Portfolio formation

Studies have employed event study methods to investigate the relations between irresponsible behaviour and firm value in both short- and long-terms. As aforementioned in Section 5.3, the news data reported by RepRisk has lag effect which the traditional short-term event study method used in similar studies (e.g., Kruger 2015; Wang et al. 2011) can cause ambiguity and inaccuracy in this study. In addition, the research purposes in the present study show how severity levels influence shareholder value differently, it is difficult to create a traditional event study framework by embedding the variable holding periods in the portfolio. To validate this point, studies used RepRisk data (e.g., Breitingner and Bonardi 2017; Cui et al. 2016; Kölbel et al. 2017) do not employ the traditional event study method. In this study, however, I focuses specifically on the impact of CSiR issues on stock returns in the long term.

Empirical studies have spent considerable efforts on evaluating the financial performance of long-run event studies. One of the most used methodologies is the calendar time portfolio approach developed by Jaffe (1974) and Mandelker (1974). In this study, I have used the standard calendar-time overlapping portfolio approach developed by Jegadeesh and Titman (1993) and Fama (1998) to detect long-run abnormal stock returns.¹⁴ Generally speaking, the portfolio approach applies ESG-related indicators to portfolios under both the idiosyncratic risk and the market risk based on the asset-pricing theory and the portfolio theory (Markowitz 1952), the common risk factors (Fama and French 1993), and the momentum factor (Carhart 1997). Lyon, Barber and Tsai (1999) identify two general event study approaches for testing of long-run abnormal stock returns – one, which uses the traditional event study framework and buy-and-hold abnormal returns, and the other, the calendar-time portfolio approach. The traditional event study framework and buy-and-hold abnormal returns method suffer two misspecifications: they cannot control for cross-sectional dependence in sample observations, and they have poor asset pricing models. Calendar-time portfolio approach has also been criticized by Lyon, Barber and Tsai

¹⁴ This method has been widely used in the related finance studies, such as Fama (1998), Lyon, Barber and Tsai (1999), Chan (2003), Fang and Peress (2009) and Hillert, Jacobs and Müller (2014).

(1999) on the grounds that it cannot precisely measure investor experience. Because the research purposes in the present study show how severity levels influence shareholder value differently, it is difficult to create a traditional event study framework by embedding the variable holding periods in the portfolio. The benefit of the calendar-time portfolio approach, therefore, is that the severity level of events for the same company can be measured and there is no need to worry about overlapping problems.

I form monthly value-weighted portfolios of companies with the different scopes of CSiR issues identified in the data section. Fama (1998) favours value-weighted portfolios because equal-weighted portfolios give more weight to small size stocks, which may have created even more serious model problems. For this study, I consider the portfolios for a successive overlapping 74-month period from June 2006 to July 2012. In order to develop a test for the news characteristics in the portfolio construction, I track post-news monthly returns for a specific time period, which is dependent on the severity of the behaviour. As described in the data section, if a firm is reported in a news report, it will be indicated by 1, 2, or 3 according to the severity level, while a firm not reported in any news will score 0.

Since some companies may be recorded with more than one piece of news in a particular month, I aggregate the severity level for each firm in each month based on the severity score. I apply a variable holding periods of 6, 12, 18, and 24 months, for companies with aggregated severity score of 1, 2, 3, and higher, respectively. For example, a company recorded with CSiR issue of severity score of 1 in a given month will be included in the portfolio and held for 6 months. If no further issue arises during this 6-month holding period, the company's stock will be excluded from the portfolio once the issue record is spent. If a new CSiR issue arises during the holding period, the holding period will be reset and the new length of holding period will be determined by the aggregated severity score. The holding period selection is based on Chan (2003), who shows that long-run returns exhibit a reversal around the two-year mark, hence it is wise to choose two years for the longest holding period. Because the news is not reported at the same time for all the companies, those included in the portfolios are not constant over the sample period. Consequently, each month, the

portfolios are rebalanced over time. The monthly portfolio excess returns are calculated and regressed by the models, as specified in the next section.

In order to address the limitations of the calendar-time portfolio approach, I also look at the ‘no-news coverage’ periods. Lyon, Barber and Tsai (1999) considered prior return performance to be an important factor in long-term event studies, and that it might also solve the overlapping return problem. Kothari and Warner (2007: 12) argue that one way of addressing the limitations of long-horizon methods is to ‘estimate the cross-sectional variability of returns during the event and non-event periods’. Because I am concerned about the appropriateness of the event window, I built the following two groups of portfolios: treatment portfolios which are constructed by including news coverage periods of the sample companies, and control portfolios, which are constructed by including no-news coverage periods for the same group of companies. The methodology, therefore, is similar to that used by Kothari and Warner (1997) and Lyon, Barber and Tsai (1999), the only difference being that the pre-event periods captured in the control portfolio, which addressed Kothari and Warner’s mis-specifications, are the monthly returns that are not included in the treatment portfolio.

Each month, I calculate the portfolio returns based on the captured monthly returns across all securities in the sample portfolio. I also consider a fixed-effect approach in which each company is compared with itself during periods when there is news coverage and periods when there is no news coverage. I therefore construct portfolios based on the time ranges of news coverage, and then build matched-pair portfolios to compare the differences between during and after-news coverage. By using this method, I can measure the financial returns for companies exposed to harmful CSiR behaviour and to compare it with the periods when companies are not exposed to harmful CSiR behaviour.

5.4.2 Performance measurement

During the analysis of each type of CSiR issue, I run time series regressions of portfolio excess returns for each month on contemporaneous risk exposure factors in various asset pricing models. In previous studies, the capital asset pricing model (CAPM), Fama and French (1993) three-factor model, and Carhart (1997) four-factor model are routinely used as standard models for estimating abnormal returns. However,

it is my contention that these models can estimate domestic shares, but that they are not suitable for shares that do not target the domestic market, such as those Chinese B shares and H shares that are examined in this study. The Carhart (1997) model is a comparably attractive model for estimating domestic stocks; however, this study also considers Chinese stocks listed outside China. Therefore, in order to avoid home bias, I used the Carhart (1997) model and extended the market exposure at regional and global level (Hoepner, Rammal and Rezec, 2011). The equation is as follows:

$$r_{xp,t} = \alpha_p + \beta_{nat,p} r_{xnat,t} + \beta_{reg,p} r_{xreg,t} + \beta_{glo,p} r_{xglo,t} + \gamma_{nat,p} SMB_{nat,t} + \delta_{nat,p} HML_{nat,t} + \lambda_{nat,p} MOM_{nat,t} + \varepsilon_{p,t}$$

where $r_{xp,t}$ represents the excess return of the portfolio p and the broad market over the risk-free asset return. α_p denotes Jensen (1968) alpha, which can be interpreted as the portfolio's systematic return component above or below the return achieved by the broad equity benchmark for the same level of systematic risk. $\beta_{nat,p}$, $\beta_{reg,p}$, $\beta_{glo,p}$ are the portfolio's systematic exposure to the broad market portfolio at a national, regional and global level. $r_{xnat,t}$, $r_{xreg,t}$, $r_{xglo,t}$ represent the market benchmark's excess return at national, regional, and global level.

The benchmark factors are Fama and French (1993)'s three factors and Carhart (1997)'s momentum factor.¹⁵ The size factor SMB_t (small minus big) represents the difference in return of small stocks portfolios and big stocks portfolios. The book-to-market ratio factor HML_t (high minus low) represents the difference in return of investing high book-to-market ratios portfolios (top 30%) and low book-to-market ratios portfolios (bottom 30%). The momentum factor MOM_t represents the difference in return of the winner stocks portfolios (top 30%) and loser stocks portfolios (bottom 30%). The size factor $SMB_{nat,t}$, the value factor $HML_{nat,t}$ and the momentum factor $MOM_{nat,t}$ are the same as the Carhart (1997) four-factor model, which only considered the national level. $\gamma_{nat,p}$, $\delta_{nat,p}$ and $\lambda_{nat,p}$ represent the exposure of a portfolio to the

¹⁵ The benchmark factors for these investment styles in the Chinese Stock Market are obtained from Style Research, which is an independent international provider for investment research and portfolio analysis. This database has been used in other studies, such as Bauer, Koedijk and Otten (2005), Renneboog, Ter Horst and Zhang (2008), and Hoepner, Rammal and Rezec (2011).

size, value, and momentum investment styles. ε_{it} represents the error term. All factors are value-weighted and one-month lagged.

I apply a company self-matched benchmark for the portfolios. Barber and Lyon (1997) argue that three types of bias are created using equally-weighted market indices: new listing bias, rebalancing bias and skewness bias.¹⁶ They find that the abnormal returns calculated based on the market index are mis-specified; however, matching sample firms to serve as a market index can correct the mis-specification. For the A-shares portfolios, no matter in which issues category, the market return is derived from the value-weighted monthly returns of all the A shares with recorded news in the sample. For the non-A shares portfolios, I follow the same logic as using the value-weighted portfolio returns of all the non-A shares with news in the sample.

This is to ensure that the underperformance of news firms is not simply because those firms are of a certain size in industries that happen to involve more adverse news or firms that already have experienced financial difficulties that could lead to irresponsible behaviour. Compared to the characteristic-adjusted benchmark used by Daniel et al. (1997), this benchmark can strictly and conservatively control for any company- or industry-specific risks that are not captured in the model. However, this benchmark can only be used in event studies, particularly for the calendar-time portfolio approach, as it only captures news coverage periods within the portfolios. This means that it cannot be used to measure a mutual fund performance that evaluates the full sample periods of returns for every firm in the portfolios.

The excess market return is the market return minus the risk-free rate derived from Datastream. I use central bank three-month bills as the risk-free rate for China. I use Japan three-month interbank and three-month US Treasury Bills as proxies for the regional risk-free rate and the global risk-free rate, respectively. All risk-free rates are converted to monthly rates.

In order to examine the political power influences, I construct portfolios by applying different dimensions of government influences to the analysis. The government pressure portfolios include all the news in the core portfolios, and government high-

¹⁶ The specific details of these biases can be seen in the study by Barber and Lyon (1997: 347–349).

rated factor, middle-rated factor, and low-rated factor are included in the regression analysis. The equation is as follows:

$$\begin{aligned}
 r_{xp,t} = & \alpha_p + \beta_{nat,p} r_{xnat,t} + \beta_{reg,p} r_{xreg,t} + \beta_{xglo,p} r_{glo,t} + \gamma_{nat,p} SMB_{nat,t} \\
 & + \delta_{nat,p} HML_{nat,t} + \lambda_{nat,p} MOM_{nat,t} + \theta_{h,p} GOV_h + \theta_{m,p} GOV_m \\
 & + \theta_{l,p} GOV_l + \varepsilon_{p,t}
 \end{aligned}$$

Where GOV_h , GOV_m , and GOV_l represent government high-rated factor, middle-rated factor, and low-rated factor. The government high-rated factor consists of monthly aggregated issues listed in the high-rated group in Table 5.3. I apply the same method to government middle-rated issues and low-rate issues. All factors are value-weighted and one month lagged.

5.5 Analysis of results

This section firstly presents summary statistics, then the core results, followed by the considerations of investor type, news characteristics, and government pressure, and lastly shows results of the robustness checks. All results use rolling portfolios.

5.5.1 Summary statistics

In order to test the hypothesis specified in Section 5.2, I construct portfolios that separately investigate the effect of different dimensions of CSiR activities on financial performance. Table 5.4 presents the number of stocks in each portfolio and descriptive statistics of naturally logged portfolio returns. All portfolio returns, which are based on the sample period from June 2006 to July 2012, are value-weighted. Panel A of Table 5.4 displays the descriptive statistics of the treatment portfolios with the news coverage of all A shares. Panel B of Table 5.4 shows the descriptive statistics of the control portfolios with no news coverage. As can be seen from the mean value of portfolio returns, all the treatment portfolio returns are lower than the control portfolio returns, which reflects the fact that, during news coverage evaluation periods, firms generate lower returns than in no-news coverage periods.

Table 5.4 Descriptive statistics

Portfolio	# obs	Mean	Median	Std. Dev.	Minimum	Maximum
<i>Panel A: Treatment portfolios (news coverage)</i>						
Issues combination	195	0.013	0.015	0.106	-0.265	0.389
Environment	91	0.009	0.017	0.104	-0.255	0.399
Social	118	0.013	0.016	0.105	-0.238	0.389
Corporate governance	82	-0.011	0.011	0.085	-0.269	0.144
Community relations	98	0.004	0.016	0.109	-0.270	0.403
Employee relations	65	0.012	0.017	0.108	-0.263	0.279
Product	59	0.002	0.005	0.106	-0.270	0.261
Violation of codes	113	0.005	0.015	0.104	-0.242	0.404
Supply chain	31	0.009	0.021	0.121	-0.334	0.307
<i>Panel B: Control portfolios (no news coverage)</i>						
Issues combination	195	0.020	0.028	0.111	-0.277	0.305
Environment	91	0.010	0.026	0.111	-0.293	0.205
Social	118	0.016	0.027	0.113	-0.296	0.318
Corporate governance	82	0.007	0.019	0.100	-0.257	0.210
Community relations	98	0.015	0.024	0.111	-0.291	0.322
Employee relations	65	0.010	0.018	0.104	-0.257	0.370
Product	59	0.013	0.021	0.104	-0.279	0.374
Violation of codes	113	0.014	0.023	0.106	-0.288	0.322
Supply chain	31	-0.003	0.011	0.089	-0.251	0.193

Note: The table provides the summary statistics for each portfolio of A-shares companies. The second column shows the number of stocks in the portfolio and the other columns show summary statistics for the naturally logged returns of each portfolio.

5.5.2 Core results

In testing Hypothesis 1, I assume that firms that engage in CSiR behaviour will receive financial penalties in the long term. If the results support the statement, the abnormal returns of portfolios should be significantly negative.

Table 5.5 shows the core results of this chapter. Panel A displays the results of the treatment portfolios constructed by news coverage periods based on the severity level of the news. This panel presents the risk-adjusted performance of Chinese A shares companies in calendar-time portfolios by using different versions of asset pricing models: CAPM, Fama and French (1993) three-factor model, Carhart (1997) four-factor model and extended Carhart (1997) model. The details of the different CSiR dimensions are described in Table 5.1. I evaluate holding periods of 6, 12, 18, and 24 months after news based on the aggregated severity level of 1, 2, 3, and higher than 3, respectively. The portfolios are value-weighted and regressed on a self-constructed value-weighted market benchmark. This table lists estimated coefficients for the extended Carhart model specified in Section 5.4. In order to test whether the results are sensitive to the weighting scheme, market benchmark, firm size, and news severity, I also form corresponding portfolios in the robustness tests.

In Panel A, no obvious differences are found by applying different versions of asset pricing models, although the CAPM model generates insignificant alphas in the ‘environment’ and ‘product’ portfolios while other models show significant alphas. Regarding Hypothesis 1, Panel A indicates that most portfolios generated negative alphas, which suggests that, after controlling for market, size, and momentum factors, most of them perform worse than expected. Firms involved in corporate governance and product issues lead to -1.6% (monthly) and -1.8% (monthly) underperformance against the benchmark, respectively, which indicate that shareholders are more concerned by corporate governance and product-related risks in the Chinese A shares market. Although the aggregated outcome of the impact of CSiR issues is expected to be negative, the possible financial impact of single dimensions of CSiR can actually either be positive, neutral, or even negative. One explanation for this may depend upon the strategic approach to the analysis of issue and stakeholder demands (Husted and Allen, 2006). I assume that inconsistent relationships may partially be explained by different market efficiency levels, cultural differences and investor interests. Perhaps

it would be desirable to obtain additional information to include in the analysis; however, such information is difficult to collect and study.

In Panel A, most of the market exposures at regional level are negative. Since I choose the same weighting scheme and market benchmark in Table 5.5, the size effect (SMB) is more pronounced for small size firms in Panel A. I find that four out of nine of the treatment portfolios appear to have significantly positive exposure to the HML factor, which suggests that the periods captured in the treatment portfolios are more value oriented; however, only a few portfolios show significant amounts of exposure to the momentum factor. In previous studies, abnormal return models generally show high adjusted R-squared statistics of about 0.8 or more (e.g., Chan, 2003; Kempf and Osthoff, 2007; Hoepner, Rammal and Rezec, 2011); also extended Carhart (1997) models generate higher adjusted R-squared statistics compared to other models, which suggest that extended market exposure explains returns better. In the following, I only present the results of the extended Carhart (1997) model.

Panel B shows the results of control portfolios for no-news coverage periods. As Panel A shows that most of the news coverage portfolios generate significant negative abnormal returns, most of the abnormal returns in the no-news coverage portfolios are positive and insignificant in Panel B. This indicates that the market does not consistently punish firms engaged in CSiR behaviour. Furthermore, I find some differences in the factor loadings between the treatment portfolios and the control portfolios. There are no big differences in market exposure at regional and global level; however, the market exposure at the national level in the no-news coverage portfolios is higher than in the news coverage portfolios. Contrary to the treatment portfolios, the HML factor shows that the control portfolios are more growth oriented. I also find that the adjusted R-squared statistic in the no-news coverage portfolios is higher than in the news coverage portfolios.

In summary, as stated in Hypothesis 1, there is an overall underperformance of portfolios engaged in CSiR news, while portfolios exposed to corporate governance and product-related risks experience the highest shareholder value loss in the long term. I argue that corporate governance and product-related risks are increasingly important elements of business strategy in China. I find that there are significant differences between treatment portfolios with news coverage and control portfolios with no-news

coverage, which suggests that there would be an advantage in adjusting investment strategy during and after news coverage.

Table 5.5 Core results

	Alpha		Market (National)		Market (Regional)		Market (Global)		SMB		HML		MOM		Adj. R ²
	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	
<i>Panel A: Treatment portfolios (news coverage)</i>															
Issues combination															
CAPM	-0.001	(-0.40)	1.002***	(21.35)											0.905
FF 3-Factor	-0.001	(-0.31)	0.999***	(23.43)					-0.150**	(-2.10)	0.040	(0.37)			0.912
Carhart 4-Factor	-0.001	(-0.35)	1.000***	(23.44)					-0.145**	(-2.00)	0.030	(0.27)	-0.026	(-0.71)	0.911
Carhart extended	-0.002	(-0.52)	1.000***	(27.47)	-0.133**	(-2.39)	0.278*	(1.92)	-0.144**	(-2.09)	0.027	(0.28)	-0.032	(-0.78)	0.915
Environment															
CAPM	0.002	(0.32)	0.994***	(14.88)											0.841
FF 3-Factor	-0.005**	(-2.07)	0.969***	(25.14)					0.033	(0.49)	0.527***	(2.99)			0.900
Carhart 4-Factor	-0.005*	(-1.75)	0.966***	(25.12)					0.022	(0.34)	0.547***	(2.93)	0.052	(0.83)	0.899
Carhart extended	-0.005*	(-1.81)	0.977***	(23.27)	-0.15**	(-2.31)	0.089	(0.47)	0.001	(0.02)	0.547***	(2.85)	0.052	(0.75)	0.901
Social															
CAPM	-0.001	(-0.32)	0.985***	(19.90)											0.894
FF 3-Factor	-0.001	(-0.28)	0.982***	(22.20)					-0.172**	(-2.38)	0.054	(0.49)			0.904
Carhart 4-Factor	-0.001	(-0.30)	0.983***	(21.99)					-0.170**	(-2.31)	0.050	(0.44)	-0.011	(-0.26)	0.903
Carhart extended	-0.002	(-0.54)	0.983***	(26.86)	-0.199***	(-4.19)	0.227	(1.44)	-0.182**	(-2.61)	0.062	(0.65)	-0.012	(-0.26)	0.910
Corporate governance															
CAPM	-0.014***	(-2.91)	0.805***	(12.29)											0.824
FF 3-Factor	-0.017***	(-3.62)	0.804***	(12.64)					0.177**	(2.11)	0.319***	(3.07)			0.856
Carhart 4-Factor	-0.016***	(-3.27)	0.802***	(12.50)					0.162**	(2.15)	0.360***	(3.20)	0.084	(1.19)	0.857
Carhart extended	-0.016***	(-3.24)	0.803***	(12.46)	0.003	(0.06)	0.068	(0.43)	0.166*	(1.99)	0.352***	(3.22)	0.082	(1.11)	0.852
Community relations															
CAPM	-0.010*	(-1.95)	0.950***	(21.40)											0.766
FF 3-Factor	-0.011**	(-2.11)	0.951***	(21.03)					-0.007	(-0.06)	0.078	(0.53)			0.761
Carhart 4-Factor	-0.012**	(-2.12)	0.955***	(19.60)					0.026	(0.22)	0.016	(0.10)	-0.162	(-1.16)	0.764
Carhart extended	-0.013**	(-2.18)	0.955***	(21.67)	-0.171**	(-2.38)	0.201	(1.20)	0.017	(0.13)	0.025	(0.17)	-0.163	(-1.15)	0.764
Employee relations															
CAPM	0.001	(0.12)	0.899***	(12.58)											0.694
FF 3-Factor	-0.006	(-1.23)	0.926***	(15.56)					-0.057	(-0.53)	0.651***	(4.04)			0.773
Carhart 4-Factor	-0.006	(-1.20)	0.926***	(15.45)					-0.057	(-0.54)	0.651***	(3.71)	0.000	(-0.00)	0.770
Carhart extended	-0.006	(-1.21)	0.925***	(15.26)	-0.048	(-0.56)	-0.189	(-0.90)	-0.078	(-0.73)	0.674***	(3.87)	0.009	(0.08)	0.764

Table 5.5 Core results continued

	Alpha		Market (National)		Market (Regional)		Market (Global)		SMB		HML		MOM		Adj. R ²
	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	
CAPM	-0.008	(-0.88)	0.639***	(4.72)											0.357
FF 3-Factor	-0.020***	(-3.00)	0.662**	(8.12)*					0.689***	(4.53)	0.743***	(3.27)			0.688
Carhart 4-Factor	-0.019***	(-2.75)	0.659**	(7.98)*					0.661***	(4.58)	0.796***	(3.53)	0.137	(0.92)	0.689
Carhart extended	-0.018**	(-2.62)	0.658***	(8.90)	0.210**	(2.20)	-0.440	(-1.33)	0.659***	(4.70)	0.800***	(3.85)	0.147	(0.99)	0.695
<i>Violation of codes</i>															
CAPM	-0.007**	(-2.42)	0.965***	(19.31)											0.901
FF 3-Factor	-0.006*	(-1.74)	0.965***	(20.23)					-0.083	(-1.23)	-0.003	(-0.02)			0.901
Carhart 4-Factor	-0.007*	(-1.84)	0.966***	(20.04)					-0.079	(-1.22)	-0.009	(-0.07)	-0.018	(-0.32)	0.900
Carhart extended	-0.007**	(-2.34)	0.968***	(24.51)	-0.175*	(-1.98)	0.306*	(1.91)	-0.084	(-1.29)	-0.008	(-0.07)	-0.024	(-0.39)	0.907
<i>Supply chain</i>															
CAPM	0.009	(0.98)	0.989***	(9.93)											0.620
FF 3-Factor	0.006	(0.72)	0.994***	(12.57)					0.505***	(2.68)	0.087	(0.35)			0.680
Carhart - Factor	0.009	(0.89)	0.995***	(11.50)					0.470***	(2.99)	0.224	(0.87)	0.233	(1.07)	0.687
Carhart extended	0.009	(0.91)	0.994***	(13.12)	0.097	(0.51)	0.713	(1.42)	0.518***	(3.08)	0.098	(0.31)	0.190	(0.90)	0.689
<i>Panel B: Control portfolios (no-news coverage)</i>															
Issues combination	0.007***	(2.74)	1.075***	(32.21)	0.115	(1.65)	-0.311***	(-2.81)	0.124**	(2.37)	-0.165***	(-2.73)	-0.045	(-0.63)	0.958
Environment	0.005	(1.50)	1.114***	(29.86)	0.135**	(2.32)	-0.188	(-1.43)	-0.012	(-0.14)	-0.240***	(-3.28)	-0.018	(-0.19)	0.945
Social	0.002	(0.96)	1.088***	(36.04)	0.135**	(2.64)	-0.164	(-1.23)	0.034	(0.54)	-0.160**	(-2.33)	-0.018	(-0.24)	0.958
Corporate governance	0.003	(1.14)	1.011***	(28.49)	-0.024	(-0.45)	-0.226	(-1.15)	0.038	(0.79)	0.033	(0.80)	-0.051	(-1.15)	0.946
Community relations	0.003	(1.02)	1.072***	(38.59)	0.135**	(2.61)	-0.143	(-1.09)	-0.001	(-0.02)	-0.182***	(-2.68)	-0.024	(-0.33)	0.959
Employee relations	-0.001	(-0.43)	1.002***	(39.49)	-0.011	(-0.22)	0.182	(1.56)	-0.027	(-0.44)	-0.182***	(-3.13)	-0.066	(-0.92)	0.954
Product	-0.001	(-0.53)	1.010***	(51.56)	-0.044	(-1.09)	0.237***	(2.70)	-0.027	(-0.64)	-0.112	(-1.36)	-0.047	(-1.27)	0.958
Violation of codes	0.002	(0.83)	1.012***	(35.03)	0.119**	(2.26)	-0.031	(-0.29)	0.071	(1.66)	-0.108**	(-2.02)	-0.042	(-0.56)	0.959
Supply chain	-0.004	(-1.59)	0.893***	(24.58)	0.058	(0.96)	-0.051	(-0.39)	-0.134***	(-3.31)	0.047	(0.53)	-0.010	(-0.15)	0.951

Note: The table presents the risk-adjusted performance of the Chinese A-shares companies involved in negative CSiR issues. Details of different CSiR issues are described in Table 5.1. Panel A shows the results of treatment portfolios with news coverage periods on four versions of asset pricing model, and Panel B shows the results of control portfolios without news coverage periods on the extended Carhart model only. Each portfolio includes news on all severity levels. I lag the news coverage for 6, 12, 18, and 24 months according to the aggregated severity level of 1, 2, 3, and higher than 3, respectively. The market return is derived from the value-weighted portfolio of all the A shares in the sample. All portfolios are value-weighted. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

5.5.3 Results on investor types

The segmented Chinese stock market allows the same underlying company to issue A shares and non-A shares. In this study, A shares are mainly targeted at mainland local investors while non-A shares can be traded freely by foreign investors. Consequently, I construct portfolios consisting of 60 cross-listed companies and divide them into local investors' portfolios and foreign investors' portfolios. In testing Hypothesis 2, I assume that local investors care more about CSiR issues than foreign investors. If the results support the statement, the abnormal returns of local investors' portfolios should be more significantly negative than the abnormal returns of foreign investors' portfolios

Table 5.6 presents the abnormal returns of local investors' portfolios and foreign investors' portfolios on the extended Carhart model. The abnormal returns of the core results are also presented for comparison. In Panel A, I find there to be more significantly negative abnormal returns in the local investors' portfolios than there are in the foreign investors' portfolios. For local investors' portfolios, firms involved in corporate governance issues, product issues, and violation of codes, lead to -1.6% (monthly), -1.4% (monthly), and -0.7% (monthly) underperformance against the benchmark, respectively. For foreign investors' portfolios, firms engaged in combination of issues, and violation of codes, results in -0.4% (monthly) and -0.6% (monthly) underperformance against the benchmark, respectively. Note that the portfolio of issues combination only indicates significance at the 10% level. In Panel B, all the local investors' portfolios present insignificant abnormal returns. In the foreign investors' portfolios, only the portfolio of issues combination shows positively abnormal returns of 0.9% (monthly) at the significance level of 10%.

The results are consistent with the literature supporting Hypotheses 2, whereby local investors care more about CSiR issues than do foreign investors. These results demonstrate that the companies listed as non-A shares may easily escape the penalty of negative issues and are less likely to be influenced by negative issues. Possible explanations are that Mainland China is not efficient in disclosing market information, has less free media coverage and operates imperfect exchange markets. Moreover, cross-listed shares have a wide shareholder base with higher liquidity which is likely to increase shareholder value.

Table 5.6 Abnormal returns of investor types portfolios

	Core results		Local investors		Foreign investors	
	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.
<i>Panel A: Treatment portfolios (news coverage)</i>						
Issues combination	-0.002	(-0.52)	0.000	(-0.02)	-0.004*	(-1.75)
Environment	-0.005*	(-1.81)	-0.005	(-1.65)	-0.003	(-0.89)
Social	-0.002	(-0.54)	0.000	(-0.02)	0.001	(0.32)
Corporate governance	-0.016***	(-3.24)	-0.016***	(-3.15)	-0.001	(-0.29)
Community relations	-0.013**	(-2.18)	-0.004	(-1.40)	-0.003	(-1.37)
Employee relations	-0.006	(-1.21)	-0.006	(-0.92)	0.002	(0.37)
Product	-0.018**	(-2.62)	-0.014**	(-2.61)	-0.004	(-0.83)
Violation of codes	-0.007**	(-2.34)	-0.007**	(-2.33)	-0.006**	(-2.09)
Supply chain	0.009	(0.91)	0.002	(0.13)	-0.005	(-0.32)
<i>Panel B: Control portfolios (no-news coverage)</i>						
Issues combination	0.007***	(2.74)	0.001	(0.21)	0.009*	(1.73)
Environment	0.005	(1.50)	0.001	(0.41)	0.005	(1.03)
Social	0.002	(0.96)	-0.001	(-0.40)	0.005	(1.19)
Corporate governance	0.003	(1.14)	0.000	(-0.03)	0.000	(-0.13)
Community relations	0.003	(1.02)	0.000	(-0.07)	0.006	(1.22)
Employee relations	-0.001	(-0.43)	-0.002	(-0.60)	0.002	(0.86)
Product	-0.001	(-0.53)	-0.004	(-1.50)	-0.002	(-1.24)
Violation of codes	0.002	(0.83)	-0.002	(-0.50)	0.000	(-0.16)
Supply chain	-0.004	(-1.59)	-0.002	(-0.86)	0.001	(0.20)

Note: The table presents the monthly regressions of abnormal returns to local investors' portfolio and foreign investors' portfolio on the extended Carhart model. The core results are presented for comparison. Panel A shows the results of treatment portfolios with news coverage periods and Panel B shows the results of control portfolios without news coverage. Each portfolio includes news on all severity levels. I lag the news coverage for 6, 12, 18, and 24 months according to the aggregated severity level of 1, 2, 3, and higher than 3, respectively. For the local investors' portfolio, the market return is derived from the value-weighted portfolio of all the A shares in the sample. For the foreign investors portfolio, the market return is derived from the value-weighted portfolio of all the non-A shares in the sample. All portfolios are value-weighted. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

5.5.4 Results on news characteristics

In Hypothesis 3, I assume that firms involved in more stringent screening news suffer more and that the effects should last for a longer period. Stringent screening methodology means selecting news at higher severity, novelty, source, and language levels. To test this hypothesis, I build extra portfolios which consist of all news other than that news at severity level of '1'. I also apply the same methodology to test the other news characteristics, including novelty, source, and language levels. For higher severity, higher novelty, higher source reach, and higher language levels of portfolios, I apply the same portfolio construction method as specified in the core results.

Table 5.7 shows the alphas of both core results and news characteristics portfolios for comparison purposes. Panel A displays that, compared to the core results, most alphas of the portfolios are more significantly negative in the severity portfolio. For the 'issues combination', 'social', and 'employee relations' portfolios, there are significant differences, suggesting that the alphas are insignificant in core portfolios while they are significantly negative in severity portfolios.

In addition, most of the alphas of the severity portfolios in Panel B are lower than in the core results although there are no significant differences. I concern that whether this is caused by the fact that small companies that have been involved in a lower severity level of activities has been excluded from these portfolios. Given that historically small companies tend to perform better than large companies (Fama and French, 1993; Fama, 1998), fewer small companies included in the portfolios can be one reason that alphas in both panels in severity portfolios is lower than core results. I therefore perform a robust test of company size in the robustness test section that only considers large companies, and find that the reason for the lower scores is not caused by company size. In other words, I capture more irresponsible companies that should have been more heavily penalised by the market during both the news coverage periods and the no-news coverage periods.

Compared to the severity level of news, the novelty level, source reach level and language level of news play a lesser role in influencing shareholder value. The results in core results portfolios and in novelty, source reach, and language portfolios are rather similar. However, it is worth pointing out that the portfolio related to product

and portfolio related risks. The novelty and source reach portfolios generate significantly negative monthly abnormal returns of 1.7% and 2.3%, respectively, while the language portfolio yields an insignificantly positive return. This implies that product and portfolio related issues are more sensitive to source reach levels, while they are less sensitive to language reporting. Therefore, the higher the quality and the popularity of the news reporting, the higher the financial market punishment would be, which also means that the higher the source reach level, the wider the readership will be.

To sum up, the results in Table 5.7 partly supports Hypothesis 3 that news reported at higher severity levels lead to greater penalties and over longer periods in the Chinese stock market.

Table 5.7 Abnormal returns of news characteristics

	Core Results		Severity		Novelty		Source Reach		Language	
	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.
<i>Panel A: Treatment portfolios (news coverage)</i>										
Issues combination	-0.002	(-0.52)	-0.014**	(-2.38)	-0.003	(-0.81)	-0.005	(-0.73)	-0.004	(-1.13)
Environment	-0.005*	(-1.81)	-0.005*	(-1.87)	-0.005*	(-1.71)	-0.005*	(-1.81)	-0.006	(-1.53)
Social	-0.002	(-0.54)	-0.014**	(-2.35)	-0.003	(-0.84)	-0.005	(-0.71)	-0.007*	(-1.82)
Corporate governance	-0.016***	(-3.24)	-0.016***	(-3.07)	-0.014***	(-3.51)	-0.016***	(-3.19)	-0.017***	(-3.12)
Community relations	-0.013**	(-2.18)	-0.014**	(-2.35)	-0.016**	(-2.04)	-0.013**	(-2.29)	-0.007*	(-1.79)
Employee relations	-0.006	(-1.21)	-0.016**	(-2.58)	-0.008	(-1.45)	-0.006	(-0.91)	-0.010*	(-1.95)
Product	-0.018**	(-2.62)	-0.019***	(-2.71)	-0.017**	(-2.53)	-0.023***	(-2.92)	0.006	(0.65)
Violation of codes	-0.007**	(-2.34)	-0.007**	(-2.19)	-0.007	(-1.57)	-0.008**	(-2.41)	-0.001	(-0.05)
Supply chain	0.009	(0.91)	0.009	(0.80)	0.005	(0.51)	0.002	(0.15)	0.016	(1.61)
<i>Panel B: Control portfolios (no-news coverage)</i>										
Issues combination	0.007***	(2.74)	0.004	(1.27)	0.006***	(2.77)	0.006**	(2.29)	0.005**	(2.10)
Environment	0.005	(1.50)	0.002	(0.42)	0.004	(1.25)	0.005	(1.50)	0.003	(0.79)
Social	0.002	(0.96)	-0.001	(-0.41)	0.003	(1.14)	0.001	(0.44)	0.003	(1.17)
Corporate governance	0.003	(1.14)	0.000	(0.11)	0.000	(0.20)	0.001	(0.53)	-0.001	(-0.66)
Community relations	0.003	(1.02)	-0.001	(-0.25)	0.003	(0.99)	0.001	(0.54)	0.003	(1.16)
Employee relations	-0.001	(-0.43)	0.000	(-0.10)	0.000	(-0.03)	-0.003	(-0.89)	-0.003	(-0.77)
Product	-0.001	(-0.53)	-0.006	(-1.47)	-0.001	(-0.61)	-0.003	(-1.05)	0.001	(0.29)
Violation of codes	0.002	(0.83)	0.000	(0.13)	0.002	(1.01)	0.000	(0.15)	-0.002	(-1.19)
Supply chain	-0.004	(-1.59)	-0.006	(-1.01)	-0.005	(-1.58)	-0.012**	(-2.64)	-0.005*	(-1.98)

Note: The table presents the monthly regressions of returns to four news characteristics portfolio on the extended Carhart model. The core results are presented for comparison. Panel A shows the results of treatment portfolios with news coverage periods and Panel B shows the results of control portfolios without news coverage. Each news characteristic portfolio excludes ESG news on characteristic level of one. I lag the news coverage for 12, 18, and 24 months according to the aggregated characteristic level of 2, 3, and higher than 3, respectively. The market return is derived from the value-weighted portfolio of all the A shares in the sample. All portfolios are value-weighted. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

5.5.5 Results on government pressure

In order to examine the influences of government pressure, the final group of portfolios apply different dimensions of government influences into analysis. The government pressure portfolios include all the news in the core portfolios, but add government high-rated factor, middle-rated factor and low-rated factor in the regression analysis. In testing Hypothesis 4, I assume that firms involved in CSiR issues will be penalised more if there are more relevant governmental announcements and regulations. If the results support the statement, the abnormal returns of portfolios should be significantly negative.

Table 5.8 shows that most of the portfolios in both panels yield insignificant abnormal returns; therefore, the alphas are not necessarily compared between treatment portfolios and control portfolios. I do not focus on the alphas of both panels, but, instead, put emphasis on the coefficients of government high-rated, middle-rated, and low-rated factors.

The high-rated factor consisted of issues that receive more government attention, and the low-rated factor consisted of issues that receive less government attention. It can be seen that the coefficients of high-rated government pressure impact negatively on the excess returns of the portfolios. Some coefficients of middle-rated government pressure also have negative effects on the excess returns of the portfolios. More interestingly, the values of the coefficients of high-rated, middle-rated, and low-rated factors gradually increase in some portfolios, such as the social portfolio in Panel A.

The results weakly support Hypotheses 4 that the financial performance, following the announcements of CSiR issues, is likely to be associated with the degree to which the government concern is integrated into the Chinese stock market. Hence, the stock market can be indirectly affected by the exercise of government power.

Table 5.8 Government pressure

Portfolio	Intercept	Market Exposures			SMB	HML	MOM	Gov(H)	Gov(M)	Gov(L)	Adj. R ²
	α	β_{nat}	β_{reg}	β_{glo}	γ_{nat}	δ_{nat}	λ_{nat}				
<i>Panel A: Treatment portfolios</i>											
Environment	0.007 (1.07)	0.989*** (24.24)	-0.113* (-1.88)	0.022 (0.12)	-0.018 (-0.33)	0.573*** (2.86)	0.033 (0.44)	-0.008 (-1.66)	0.000 (-0.03)	-0.001 (-0.82)	0.901
Social	0.014 (1.23)	0.991*** (23.57)	-0.154*** (-2.95)	0.207 (1.25)	-0.171** (-2.56)	0.046 (0.44)	-0.042 (-0.79)	-0.007 (-1.22)	-0.003 (-1.26)	-0.001 (-1.23)	0.911
Corporate governance	-0.012 (-1.49)	0.813*** (12.50)	0.014 (0.18)	0.008 (0.05)	0.200** (2.30)	0.345*** (3.13)	0.068 (0.73)	-0.005 (-0.96)	0.000 (0.02)	0.000 (0.02)	0.845
Community relations	-0.007 (-0.66)	0.963*** (18.35)	-0.163* (-1.97)	0.170 (0.88)	0.057 (0.35)	-0.012 (-0.07)	-0.200 (-1.24)	-0.005 (-0.70)	0.000 (0.19)	-0.001 (-1.31)	0.749
Employee relations	0.012 (0.95)	0.939*** (15.24)	0.035 (0.36)	-0.241 (-1.02)	-0.105 (-0.94)	0.751*** (3.99)	-0.024 (-0.21)	-0.009 (-1.13)	-0.002 (-0.32)	-0.003 (-1.43)	0.768
Product-portfolio	-0.018 (-1.57)	0.672*** (8.15)	0.206** (2.02)	-0.524 (-1.36)	0.724*** (4.56)	0.758*** (3.31)	0.145 (0.84)	-0.004 (-0.48)	0.000 (-0.11)	0.001 (0.42)	0.692
Violation of codes	0.002 (0.33)	0.973*** (21.66)	-0.143 (-1.41)	0.306* (1.73)	-0.056 (-0.88)	-0.032 (-0.27)	-0.049 (-0.68)	-0.002 (-0.48)	-0.003* (-1.70)	-0.001 (-1.18)	0.902
Supply chain	0.043*** (2.74)	1.020*** (14.14)	0.177 (1.07)	1.084** (2.14)	0.699*** (4.20)	-0.146 (-0.41)	0.099 (0.43)	-0.016** (-2.30)	-0.008* (-1.99)	0.000 (0.17)	0.716

Table 5.8 Government pressure continued

Portfolio	Intercept	Market Exposures			SMB	HML	MOM	Gov(H)	Gov(M)	Gov(L)	Adj. R ²
	α	β_{nat}	β_{reg}	β_{glo}	γ_{nat}	δ_{nat}	λ_{nat}				
<i>Panel B: Control portfolios</i>											
Environment	-0.007 (-0.83)	1.112*** (29.44)	0.088 (1.30)	-0.168 (-1.30)	-0.011 (-0.12)	-0.240*** (-2.71)	0.006 (0.06)	0.003 (0.82)	0.003 (1.52)	0.002* (1.84)	0.946
Social	-0.008 (-1.51)	1.088*** (32.39)	0.096 (1.59)	-0.154 (-1.11)	0.032 (0.48)	-0.162** (-2.06)	0.004 (0.05)	0.003 (0.89)	0.003 (1.33)	0.002 (1.56)	0.959
Corporate governance	-0.001 (-0.17)	1.013*** (23.76)	-0.046 (-0.66)	-0.319 (-1.65)	0.045 (0.81)	0.054 (0.99)	-0.066 (-1.35)	-0.005 (-1.28)	0.006*** (4.68)	0.000 (-0.27)	0.952
Community relations	-0.008 (-1.43)	1.071*** (34.12)	0.097 (1.58)	-0.122 (-0.87)	-0.005 (-0.09)	-0.184** (-2.34)	-0.001 (-0.02)	0.003 (0.87)	0.003 (1.40)	0.002* (1.76)	0.960
Employee relations	-0.01** (-2.10)	1.008*** (35.98)	-0.058 (-1.28)	0.197* (1.69)	-0.029 (-0.49)	-0.211*** (-2.71)	-0.048 (-0.68)	-0.001 (-0.30)	0.004 (1.16)	0.002** (2.34)	0.958
Product-portfolio	0.006 (1.34)	1.016*** (45.41)	-0.028 (-0.63)	0.218** (2.31)	-0.014 (-0.30)	-0.129 (-1.39)	-0.069* (-1.77)	-0.004 (-1.33)	-0.001 (-0.45)	-0.001 (-0.68)	0.957
Violation of codes	0.005 (0.92)	1.013*** (30.32)	0.120* (1.86)	0.000 (-0.00)	0.084 (1.64)	-0.138** (-2.06)	-0.052 (-0.65)	-0.003 (-0.98)	0.001 (0.86)	0.000 (0.20)	0.955
Supply chain	-0.003 (-0.60)	0.894*** (24.93)	0.074 (1.14)	-0.137 (-1.15)	-0.143*** (-3.42)	0.103 (0.97)	-0.01 (-0.15)	-0.003 (-0.48)	0.002 (0.97)	-0.001 (-0.55)	0.949

Note: The table presents risk-adjusted performance of the extended Carhart model with added government. Panel A shows the results of treatment portfolios with news-effect periods, and Panel B shows the results of control portfolios with non-news-effect periods. Each portfolio includes CSiR news on all severity levels. I lag the news coverage for 6, 12, 18, and 24 months according to the aggregated severity level of 1, 2, 3, and higher than 3, respectively. All portfolios are value-weighted. The market return is derived from the value-weighted portfolio of all the A shares in the sample. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based Newey and West (1987) method.

5.5.6 Robustness tests

The results appear to be robust across various evaluation methods. Similar results are found by conducting the following tests (see Table 5.9). Firstly, instead of using a value-weighted scheme for portfolio returns, I also use equally-weighted portfolio returns based on the same companies in the core results. By using different weighting schemes for portfolio returns, there appears to be some robust evidence of underperformance of portfolios relating to corporate governance and product-related risks in the long term. Note that, except for this test, for all the other robustness tests a value-weighted scheme has been used.

Secondly, finance scholars have long realised the importance of the size of companies regarding their effects on long-run abnormal stock returns (e.g., Dimson and Marsh, 1986; Barber and Lyon, 1997). Since large companies normally have more media exposure than small companies (Strike, Gao and Bansal, 2006), I am concerned that large-size firms may dominate the returns in treatment portfolios. Therefore, I divide the sample by using the median market cap as the breakpoint, and excluding small companies in both the treatment portfolios and the control portfolios. As can be seen in Table 5.9, the results of company size portfolios remain similar to the core results. A notable exception to this is that the alphas in the community relations and violation of codes portfolios become insignificant.

Thirdly, I use three other different market benchmarks for estimating the asset price models, namely, MSCI A IMI, CSI 300 and Style Research.¹⁷ I find less significant alphas in the portfolios with news coverage, however, the three benchmarks produce similar results to the core results in the portfolios relating to corporate governance and product-related risks. This is consistent with Kothari and Warner (1997)'s finding, in

¹⁷ The MSCI China A Investable Market Index (IMI) captures large, medium and small cap representation across the securities listed on the Shanghai and Shenzhen stock exchanges. More details can be seen at: www.msci.com/eqb/methodology/meth_docs/MSCI_Nov11_GIMIMethod.pdf.

The CSI 300 index is a capitalization-weighted stock market index designed to replicate the performance of 300 stocks traded in the Shanghai and Shenzhen stock exchanges. More details can be seen at: www.csindex.com.cn/sseportal_en/csiportal/zs/jbxx/report.do?code=000300&subdir=1.

The market index is within the same group of benchmark factors for these investment styles in the Chinese Stock Market obtained from Style Research, as specified above.

that abnormal returns can differ widely when different benchmarks are used. The biggest difference is that there are more significantly positive alphas in the companies without news coverages under the MSCI A IMI and CSI 300 benchmarks. I would argue, therefore, that based on the market conditions during the sample period, such a scale of outperformance in the control portfolios is unlikely to occur. Given that now I have provided results for both news coverage periods and no-news coverage periods, the comparison between the two panels is still unclear, no matter which market benchmark is used in the regression.

In results that I have not reported, I split the sample into sub-sample periods based on the economy bubble theory, which can detect whether CSiR activities in China are undergoing changes. Therefore, I test the periods before and after the financial crisis by using the core results portfolios and I also remove the outliers from the sample by excluding companies with the 5% highest and 5% lowest number of news items. The results, however, remain similar to the core results.

Robustness tests offer some support for the belief that corporate governance and product-related issues are fully reflected in the stock prices in the Chinese A shares market. This particular finding is not influenced by the weighting method, market benchmark, company size, news characteristics, and sample selection.

Table 5.9 Robustness checks

	Core Results		Equal Weighted		Company Size		Market Benchmark					
							MSCI A IMI		CSI 300		Style Research	
	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.	Coeff.	t-stat.
<i>Panel A: Treatment portfolios</i>												
Issues combination	-0.002	(-0.52)	-0.006*	(-1.94)	0.000	(0.01)	0.005	(0.85)	0.006	(0.98)	0.001	(0.14)
Environment	-0.005*	(-1.81)	-0.007**	(-2.04)	-0.005*	(-1.69)	0.000	(0.12)	0.001	(0.28)	-0.004	(-0.92)
Social	-0.002	(-0.54)	-0.006*	(-1.81)	0.000	(0.00)	0.005	(0.83)	0.006	(0.96)	0.001	(0.13)
Corporate governance	-0.016***	(-3.24)	-0.010**	(-2.62)	-0.016***	(-3.20)	-0.012**	(-2.06)	-0.012**	(-2.08)	-0.015**	(-2.58)
Community relations	-0.013**	(-2.18)	-0.012**	(-2.03)	-0.004	(-1.47)	-0.005	(-0.78)	-0.004	(-0.66)	-0.009	(-1.16)
Employee relations	-0.006	(-1.21)	-0.002	(-0.38)	-0.005	(-0.90)	-0.001	(-0.11)	0.001	(0.09)	-0.004	(-0.61)
Product	-0.018**	(-2.62)	-0.011*	(-1.67)	-0.014**	(-2.52)	-0.015**	(-2.18)	-0.014**	(-2.19)	-0.016**	(-2.24)
Violation of codes	-0.007**	(-2.34)	-0.006**	(-2.01)	-0.007**	(-2.35)	0.001	(0.16)	0.002	(0.26)	-0.003	(-0.34)
Supply chain	0.009	(0.91)	0.005	(0.76)	0.004	(0.38)	0.015	(1.66)	0.016	(1.63)	0.009	(0.89)
<i>Panel B: Control portfolios</i>												
Issues combination	0.007***	(2.74)	0.002	(0.56)	0.007**	(2.48)	0.013***	(4.37)	0.014***	(5.32)	0.009**	(2.54)
Environment	0.005	(1.50)	0.003	(0.66)	0.005	(1.44)	0.010***	(2.82)	0.011***	(3.51)	0.006*	(1.74)
Social	0.002	(0.96)	0.000	(0.10)	0.002	(0.85)	0.009***	(2.75)	0.010***	(3.66)	0.005	(1.37)
Corporate governance	0.003	(1.14)	0.001	(0.27)	0.002	(1.08)	0.008**	(2.63)	0.008***	(3.11)	0.003	(0.89)
Community relations	0.003	(1.02)	0.001	(0.24)	0.003	(1.03)	0.009***	(2.80)	0.010***	(3.68)	0.005	(1.42)
Employee relations	-0.001	(-0.43)	-0.003	(-0.80)	-0.001	(-0.52)	0.006	(1.51)	0.007*	(1.83)	0.002	(0.34)
Product	-0.001	(-0.53)	0.001	(0.39)	0.000	(0.08)	0.006	(1.15)	0.007	(1.35)	0.002	(0.30)
Violation of codes	0.002	(0.83)	0.001	(0.17)	0.002	(0.76)	0.009**	(2.53)	0.010**	(2.60)	0.006	(1.22)
Supply chain	-0.004	(-1.59)	-0.002	(-0.43)	-0.004	(-1.50)	0.001	(0.38)	0.002	(0.53)	-0.003	(-0.77)

Note: Table 5.9 presents the monthly regressions of returns to all robustness tests portfolios on the extended Carhart model. Panel A shows the results of treatment portfolios with news-effect periods, and Panel B shows the results of control portfolios with non-news-effect periods. Each portfolio includes CSiR news on all severity levels. I lag the news coverage for 6, 12, 18, and 24 months according to the aggregated severity level of 1, 2, 3, and higher than 3, respectively. Except for the equal-weighted portfolio, all other portfolios are value-weighted. Except the three market benchmark test portfolios, all other portfolios apply the market return derived from the value-weighted portfolio of all the A shares in the sample. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based Newey and West (1987) method.

5.6 Conclusions and discussions

Using data from RepRisk, this research has provided insights into market interest in the impact of CSiR issues on financial performances in China. I have shown how variations in the characteristics and scope of CSiR issues affect CFP in the long term. The main results suggest that Chinese companies with different negative CSiR issues are penalised to varying degrees in terms of their share price performances. Portfolios based on corporate governance and product-related risks are subject to the highest performance penalties when compared to the appropriate benchmarks while controlling for other investment styles. Also, compared with social and environmental issues, investors care more about corporate governance.

Moreover, this study has revealed that companies involved in CSiR issues generate negative returns that vary across most issues in the Chinese cross-listed A shares market, while negative issues may not influence Chinese cross-listed non-A shares. Consequently, it seems that companies listed as cross-listed shares may escape punishment more easily for CSiR behaviour. This particular finding highlights the differences between local investors and foreign investors in their perceptions of, and reactions to, various CSiR issues. The results of this study do not encourage investors to invest only in Chinese cross-listed shares to avoid financial penalty. Nevertheless, the difference between Chinese A shares and cross-listed shares should motivate the government to take action to encourage negative disclosure of issues and to improve regulatory transparency. Further, this study's results suggest that the Chinese stock market can be indirectly affected by the legitimacy and government power.

The study's results also indicate that the CSiR activities of Chinese A shares firms can become proxies which may have implications for future stock returns. This study has demonstrated that the most urgent CSiR issues in Chinese companies can be warning indicators for investors, analysts, institutions, and governments; consequently, perhaps companies should integrate CSiR information into their management and decision-making processes.

Additional research should perhaps explore the following directions. Firstly, it is necessary to measure CSiR issues by considering different firm characteristics. It

would be interesting to see which industries generate more pressing CSiR risks. Secondly, due to the constraints imposed by the small sample size, I have not analysed the impact of the dynamic characteristics of news reporting over both shorter and longer periods. Because I have estimated the effects of CSiR for 6, 12, 18, and 24 months periods, it would be worth testing the effects for 3, 6, 9, and 12 months. Finally, future research may also apply this method to Western or other Asian countries with respect to specific stock market and cultural characteristics.

Appendix 5A. Comparison of highly concerned ESG issues

According to the SynTao report (2011), the top five ESG issues in China from 2010 to 2011 can be seen from Table 5.10 below, which are compared with the related RepRisk Scope or Criteria for ESG issues.¹⁸ The top ESG issues in this study and in the SynTao report partly overlap. Both researches list corruption, fraud, pollution, and product issues as the top issues in China. The partially matched issues are shown in italics.

Table 5.10 Comparison of SynTao report and RepRisk scope

SynTao report: Top five ESG issues	RepRisk scope for ESG issues
Occupational health and safety	Health and safety issues
Corruption and fraud	Corruption, bribery, extortion, and money laundering
	Fraud
Environment and industrial hazard	Global pollution and climate change
	Local pollution
Business ethics	<i>Tax Evasion</i>
	<i>Anti-competitive practices</i>
Product safety	Products (health and environmental issues)

¹⁸ ‘SynTao is a leading consultancy based in Beijing, promoting sustainability in the Asian region. I provide corporate social responsibility (CSR) and socially responsible investment (SRI) related consulting, research, and training services. SynTao has developed successful partnerships with a wide range of regional and overseas organizations such as (inter)national corporations, NGOs, government agencies, media, and academic institutions. SynTao is a signatory to the Principles for Responsible Investment (PRI).’ More details about SynTao can be seen at: http://www.syntao.com/PageDetail_E.asp?Page_ID=14738.

According to the MSCI country report in China dated September 2012, there are three key areas of risks in China: governance, environmental, and social risks. This study compared each of these three key areas as they related to RepRisk Scope for ESG issues (See Table 5.11).¹⁹ Note that the partially matched issues are shown in italics. It is worth noting that there are also overlaps between MSCI report and this study, since both identified corruption, pollution, and product issues as urgent matters in China.

Table 5.11 Comparison of MSCI country report and RepRisk scope

MSCI country report: China	RepRisk scope for ESG issues
Key governance risks in China	
Corporate governance	<i>Executive compensation</i>
Corruption and instability	Corruption, bribery, extortion, and money laundering
	<i>Fraud</i>
Key environmental risks in China	
Toxic emissions and waste	Waste Issues
Carbon emissions	Global pollution and climate change
Financing environmental impact	Local pollution
Key social risks in China	
Product safety and quality	Products (health and environmental issues)
Labour issues	Forced labour
	Child labour

¹⁹ Source: http://www.msci.com/resources/pdfs/IVA_Country_Report_China_Extract.docx.pdf
<http://www.reprisk.com/repriskscope/>.

Appendix 5B. Chinese shares

China has two main stock exchanges: Shanghai and Shenzhen stock exchange. The most special characteristic of the Chinese stock market is that China has distinctive categories of shares, such as A shares, B shares, H shares, N shares, L shares, Red chips, and P chips. Table 5.12 (below) shows the differences between share types.

Chinese A shares are denominated in Chinese Yuan and listed either on Shenzhen stock exchange or on Shanghai stock exchange. B shares are foreign investor targeted stocks that are listed to attract foreign capital. B shares are listed on the Shanghai or Shenzhen Stock Exchange, which are respectively traded in US and Hong Kong dollars. Chinese non-A shares, including H shares and other shares, are listed on exchanges in Hong Kong and outside Mainland China. H shares are listed on the Hong Kong stock exchange. Other stocks are listed in the US, Singapore, the UK, Germany, Australia, Japan, Taiwan, South Korea, Canada and Malaysia. It should be noted that some Chinese companies are dual listed, which indicate that these companies have listed shares on two stock exchanges and one of the shares must be A share.

The main difference between A shares and non-A shares is the targeted investors. Only domestic mainland Chinese investors and qualified foreign institutional investors (QFII) are allowed to trade in A shares. Citizens of Hong Kong, Macao and Taiwan, foreign investors and overseas-based mainland Chinese citizens are allowed to invest in non-A shares which include B, H, and other shares listed outside mainland China and Hong Kong. Since 2001, mainland Chinese citizens have been allowed to invest in B shares in foreign currencies. In summary, mainland Chinese citizens are only allowed to invest in A and B shares, while non-mainland citizens can freely invest in non-A shares.

Table 5.12 Share classes

Share Classes	Incorporated place	Traded place/Exchange	Quoted in/Currency	Targeted investors	Other unique characteristic 01	Other unique characteristic 02
A shares	mainland China	Shanghai or Shenzhen	Chinese yuan	mainland Chinese citizens and QFII		
B shares	mainland China	Shanghai or Shenzhen	Shanghai stock exchange in USD; Shenzhen stock exchange in HKD	All investors		
H shares	mainland China	Hong Kong	HKD	Hong Kong citizens and foreign investors		
N shares	Outside of mainland China	NYSE, NASDAQ or AMEX		Residents outside of mainland China		
S shares	Outside of mainland China	Singapore		Residents outside of mainland China		
L shares	Outside of mainland China	London		Residents outside of mainland China		
Red Chips	Outside of mainland China (mainly in Hong Kong)	Hong Kong		Residents outside of mainland China	State-owned Chinese companies, controlled by mainland China state entities	
P Chips	Outside the mainland (Mainly in foreign jurisdictions: Cayman Islands, Bermuda, British Virgin Islands, etc.)	Hong Kong		Residents outside of mainland China	Non-state-owned Chinese companies, controlled by mainland individuals	50% or more of their sales revenues or assets derived from PRC.
HK ordinary shares	Hong Kong	Hong Kong		Hong Kong citizens		50% or more of their sales revenues or assets derived from Hong Kong.

Source: 1) <http://www.hkex.com.hk/eng/prod/secprod/eqty/Documents/equities.pdf> 2) http://www.ftse.co.uk/Indices/FTSE_Relclassification_of_P_Chips_to_China_FAQ.pdf 3) Zheng, Y. 2011. Some Issues on Classification of Shares in Chinese Context. Working Paper.

6 The Value of Transparency

Abstract

This study investigated whether high transparency level of ESG disclosure provides insurance-like protection for firms with negative media exposure of their ESG activities. Using an extensive sample of 843 MSCI index matched US companies from 2007 to 2012, this study focuses on the moderating effects of ESG disclosure ratings in the long-term. Based on an adjusted ESG disclosure score by company size and sector, companies are divided into those inside the period of negative media exposure, those outside the period of negative media exposure and those without media exposure. The main findings are the protection offered by ESG disclosure is weak; however, there are significant variations across different dimensions, company sizes, sectors, and different time periods. Generally, the moderating effect is more pronounced in the corporate governance dimension, large size firms in consumer sectors, and after the financial crisis period. The findings are robust in controlling for different market benchmarks, news coverage time horizons, firm size, extreme value, and sector.

Key words: Corporate social irresponsibility, ESG disclosure, financial return

6.1 Introduction

Along with the increased need to manage ESG risks and opportunities, one particular area that has attracted increasing attention is the value of ESG disclosure ratings – referred to as *transparency*. The ESG disclosure rating is a measurement based on ‘the degree of transparency of a company’s reporting measured in terms of how many of the possible metrics a company is reporting’ (Eccles, Krzus and Serafeim, 2011: 6). The ESG disclosure indicates the degree of transparency when a company reports non-financial information to stakeholders, while the ESG performance shows the real ESG practice and performance. Higher ESG disclosure rating firms enable stakeholders to obtain more efficient and comprehensive information about ESG strategies, policies, and practices, which is essential for stakeholders to form an opinion about how well a firm is managing its the business operations.

There are now increased requirements for the transparency of both financial and non-financial information after various corporate scandals in past decades, which consequently lead to developing a series of guidelines, frameworks, and regulations to improve corporate reporting.²⁰ High quality disclosure and transparency are now crucial and investors are interested in how firms integrate ESG issues into their business management processes. Companies and investors increasingly recognise how ESG information directly impacts upon their reputation, value, and performance. Government and regulatory authorities are making efforts to encourage companies to disclose ESG information and helping to standardise the format and procedures of ESG disclosure. Do companies with high quality ESG disclosure perform better than those with low quality ESG disclosure, and if so, in what ways? Do companies’ high ESG disclosure ratings offer insurance-like protection for them if it happens that they engage in socially irresponsible behaviour? What are the implications and differences in terms of the stress times of such protection?

This research is based on the assumption that high transparency for ESG disclosure helps firms to improve their ESG performance, build trust among stakeholders and

²⁰ Companies can choose to voluntarily follow any published guidelines, including the Global Reporting Initiative (GRI) guidelines, the United Nations’ Norms on the Responsibilities of Transnational Corporations, the International Organization for Standardization (ISO) 26000 Guidance on Social Responsibility, and other frameworks.

strengthen the credibility of firms. Eccles, Ioannou and Serafeim (2014) believe that effective ESG management brings benefits including capturing revenue-generating opportunities, saving costs, minimising downside risks, and reducing the number of fines and lawsuits. I assume that there is less risk of investing in companies which are more transparent because there is also more certainty that such companies can deliver on financial performance, and more transparent companies should receive fewer penalties on financial returns if involved in negative issues.

Since the ESG issues, both in academia and in practice, are receiving increasing concern, the impact of CSiR on CFP has been investigated in many studies and most studies confirm that socially irresponsible activities have an adverse effect on financial performance. For instance, Baucus and Baucus (1997) examine the longer term financial consequences of illegal corporate activities and find that firms suffer from lower financial returns and slower sales growth. Frooman (1997) investigates the influence of irresponsible news on stock returns and finds that socially irresponsible and illicit behaviour had negative effects on shareholder wealth. Karpoff, Lee and Martin (2009) examine the penalties imposed on the firms targeted by SEC enforcement action for financial misrepresentation, and find that firms suffered from substantial penalties due to their loss of reputation. Flammer (2013) investigates the impact of irresponsible environmental news on shareholder value and find that media coverage of irresponsible environmental behaviour lead to a significant drop in share prices.

Numerous studies have confirmed that ESG disclosure may help firms to strengthen stakeholder relations and improve their long-term reputations. Reverte (2008) finds that CSR disclosure ratings are significantly and positively connected to firm value, particularly with larger size firms, and higher media exposure, and firms in more environmentally sensitive industries. Khaveh et al. (2012) provide evidence that firms with higher levels of sustainability disclosure results in higher shareholder values and increased net profits. Villiers and Marques (2016) suggest that higher CSR disclosure rating lead to higher share prices, especially in countries with good government, media freedom and regulation. Dhaliwal et al. (2011) find that firms after initiating CSR disclosure can benefit from lower cost equity capital. Based on firm-level data from 31 countries, Dhaliwal et al. (2012) provide extra evidence that the disclosure of

nonfinancial information is connected to lower analyst forecast error, and the relationship is stronger in countries where CSR performance is more likely to have an influence on financial returns.

A few of studies have investigated buffers for firms involved in negative media coverage of CSiR activities. For instance, Janney and Gove (2011) examine the moderating effect of corporate reputation; Colwell, Noseworthy and Alexeev (2010) consider the protection of firm size, and Williams and Barrett (2000) investigate the effect of corporate philanthropy. In an in-depth study, Godfrey, Merrill and Hansen (2009) examine whether shareholders gained value from CSR activities when a firm engaged in negative behaviour. Based on 178 negative legal/regulatory actions against firms throughout 11 years, from 1993 to 2003, they extend the risk management model by theorizing that some types of CSR activities are more likely to create goodwill and offer insurance-like protection than other types. They demonstrate that several specific firm and event characteristics have an insurance effect on firms suffering from the negative effects of events.

The above-mentioned studies, however, do not focus on whether firms with higher levels of ESG disclosure can benefit from revelations about improper behaviour. This study aims to fill this gap by investigating whether a firm's high ESG disclosure rating moderates the effect of CSiR news on a firm's abnormal returns. More specifically, I test the moderating effect across different company sizes, sectors, dimensions of disclosure, and the time period during and after a financial crisis.

Using data from Bloomberg for indicators of ESG disclosure and transparency, and RepRisk for data regarding negative CSiR news, I collect an extensive sample of 843 MSCI index matched US companies between January 2007 and July 2012 and built portfolios based on the news coverage. I also collect a comparison sample of 674 US companies without negative media coverage during the same sample period. The main findings are that ESG disclosure offers weak protection; however, there are significant variations in this protection across different dimensions, company sizes, sectors, and time periods. Generally, the moderating effect is more pronounced in the corporate governance dimension, large size firms, in consumer sectors, and after the financial crisis period. According to the main analysis, there is no difference between portfolios constructed inside the negative media exposure period and outside the negative media

exposure period. However, the comparison sample of companies without any negative media exposure underperformed against the market benchmark. The findings are robust to control for different market benchmarks, news coverage time horizons, firm sizes, extreme values, and sectors. Overall, the results reveal that ESG disclosure ratings provide weak protection for companies suffering from negative media exposure on ESG issues in the long term.

This chapter makes a contribution to the current literature by firstly, investigating ESG disclosure and whether the detrimental effects are reduced when CSiR news is announced. It provides an appropriate and comprehensive measurement of ESG performance and best portfolio choices. This chapter has implications for academics and institutional investors for understanding the importance of ESG disclosure in financial markets. If ESG disclosure can act as a buffer, then ESG disclosure and transparency should be important for firms to control risks to their reputations and reduce potential financial losses. On the other hand, the opposite could be true, that firms in a high reputation risk group, may attempt to acquire a positive corporate image. If so, large firms could use ESG activities to control for reputation risk. Once investors found out their true purpose, they could penalise those firms, and therefore, their ESG performance may also increase their risks.

The remainder of this chapter is structured as follows: Section 2 develops the theoretical framework upon three angles of support from the literature. Section 3 introduces the data source to measure corporate negative ESG activities and transparency and details the sample selection process. Section 4 explains the methodology employed in this chapter, including both portfolio construction and model specification. Section 5 presents the results of the descriptive statistics and various analyses, while the last section concludes and provides suggestions for future research.

6.2 Literature review and theoretical framework

This section firstly reviews the relationship between CSiR behaviour and financial performance, followed by a discussion of how ESG disclosure affects shareholder value. In consideration of the insurance-like protection of ESG disclosure ratings for

firms engaged in CSiR behaviour, this section also outlines the possible buffers to help firms mitigate risks and financial losses after CSiR news.

6.2.1 CSiR behaviour and financial performance

Builds on the definition by Strike, Gao and Bansal (2006) that CSiR is the set of corporate actions that negatively affect stakeholder relationships in the long run. Possible harmful impacts of CSiR behaviour include lower financial returns and slower sales growth (Baucus and Baucus, 1997), reduced shareholder wealth and stock price decline (e.g., Frooman, 1997; Konar and Cohen, 2001; Gupta and Goldar, 2005), and substantial penalties for loss of reputation (Karpoff, Lee and Martin, 2014). The theoretical model of the relationship between CSiR and corporate financial performance (CFP) is illustrated on the left-hand side of Figure 6.1, below.

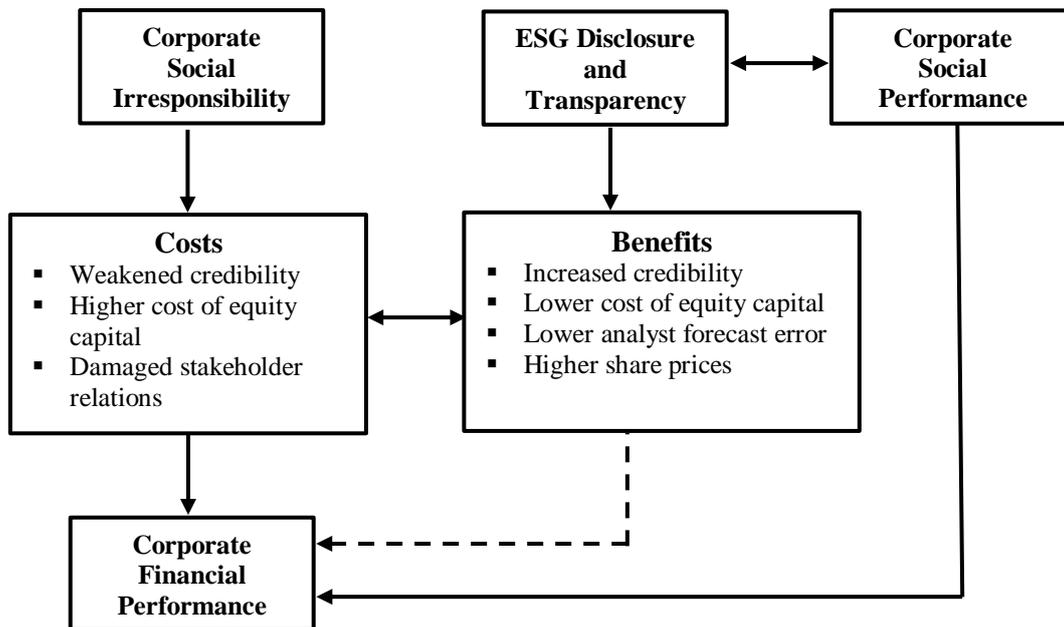
The respective literature has concluded that the influence of CSiR behaviour on CFP is mainly negative. In earlier studies, Hamilton (1995) investigate the impact of pollution data on financial performance and find that companies experienced significant negative abnormal returns after the first release of pollution figures. Similarly, Laplante and Lanoie (1994) indicate that firms with more serious pollution problems experience more adverse financial effects than firms with less serious pollution. In a long-term study, Baucus and Baucus (1997) examine the financial consequences of illegal corporate activity and find that firm suffered lower financial returns and slower sales growth in the long term. Frooman (1997) conducts a meta-analysis investigating the influence of irresponsible events on stock returns and shows that socially irresponsible and illicit behaviour has negative effects on shareholder wealth. Konar and Cohen (2001) find that firms' stock prices fall on the day of the public announcement of company emission reports from the Toxic Release Inventory (TRI).

In more recent studies, Gupta and Goldar (2005) conduct an event study and find that after the release of environmental-unfriendly behaviour, firms experience negative abnormal returns of up to 30%. By examining 478 environmental violations by publicly traded companies from 1980 through 2000, Karpoff, Lott and Wehrly (2005) provide evidence that firms that violated environmental regulations suffered statistically significant losses in share values. Karpoff, Lee and Martin (2009) examine

the penalties imposed on the firms targeted by SEC enforcement actions for financial misrepresentation, and find such firms suffered substantial penalties in the form of loss of reputation. They argue that firms involved in foreign bribery experienced a significant loss in share values of 4.99%. Kruger (2015) investigate newsletters related to negative CSR activities in the original KLD database and show that negative CSR news has a strong negative impact on shareholder values, which is more pronounced in the community and environmental dimensions of CSR.

In addition, the relevant literature has provided evidence that companies that behaved in socially irresponsible ways are riskier due to the increased possibility of lawsuits and fines and potential reputation damage (e.g., Brammer and Pavelin, 2006; Dhaliwal et al., 2011; El Ghoul et al., 2011; Oikonomou, Brooks and Pavelin, 2014a). Companies that act in socially unsound and unethical ways are likely to face negative consequences. In severe cases, they have to face lengthy and damaging lawsuits and to pay large fines. In less severe cases, if stakeholders have little access to negative information, companies may be lucky enough to escape financial market penalties. However, once a company's reputation has been damaged by irresponsible behaviour, it also damages the stakeholder relationship, which can take longer to recover and some relationships may never be able to recover. Rebuilding effective stakeholder management relates to the longer-term time horizon because mutual respect, trust, and cooperation require a significant amount of time to repair and then maintain (Eccles, Ioannou and Serafeim, 2014).

Figure 6.1 Theoretical framework of the value of transparency



6.2.2 ESG disclosure and financial performance

As mentioned earlier, ESG disclosure is different from ESG performance, though a large and ever-increasing body of literature has analysed the relationship between the individual dimensions of ESG performance and CFP, such as corporate environmental performance and CFP (e.g., Russo and Fouts, 1997; Derwall et al., 2005; Kim and Statman, 2011), corporate social performance and CFP (e.g., Waddock and Graves, 1997; McWilliams and Siegel, 2000; Barnett and Salomon, 2012), and corporate governance performance and CFP (e.g., Gompers, Ishii and Metrick, 2003; Spellman and Watson, 2009; Shan and McIver, 2011).

As a number of studies have implied a positive connection between CSR disclosure and CSR performance, a link between ESG disclosure and CFP should also exist. Gelb and Strawser (2001) argue that the practice of information disclosure on CSR is part of the act of engaging in stakeholder management by undertaking CSR activities. The study indicates that there is a positive relationship between CSR disclosure level and CSR performance. The rationale behind this is that high-quality ESG disclosure can act as an indicator of better ESG performance due to socially responsible firms being more likely to be more informative in CSR disclosures. Consistent with this theory, Dhaliwal et al. (2011) discover that firms with superior CSR performance are more likely to disclose sustainability reports. More importantly, ESG disclosure can be an effective way to improve ESG performance since they provide comparisons between firms and their competitors, and serve as a benchmark for the firm itself over time. Moreover, since CSR performance measures are often constructed on information including companies' disclosure on CSR along with other information (Cho, Lee and Pfeiffer, 2013), the relationship between ESG disclosure and ESG performance should be strong.

Studies have argued that ESG disclosure and ESG performance waste resources for firms with financial problems. For instance, the social responsibility of firms should be to increase profits and shareholder wealth (Friedman, 1970). Few studies have found a relationship between increased financial performance and increased levels of CSR disclosure and transparency. As shown in Figure 6.1, the relationship between ESG disclosure and CFP is mainly positive. ESG disclosure could have the benefit of increased credibility (e.g., Simnett, Vanstraelen and Chua, 2009; Benabou and Tirole,

2010), lower equity capital costs (Dhaliwal et al., 2011), lower analyst forecast errors (Dhaliwal et al., 2012), and higher share prices and net profits (e.g., Khavesh et al., 2012; Villiers and Marques, 2016).

In recent studies, Reverte (2008) find CSR disclosure ratings are significantly and positively connected with larger size firms and higher media exposure, and firms in more environmentally sensitive industries. However, they find no connection between CSR disclosure and profitability or the leverage of listed firms. Khavesh et al. (2012) provide evidence that firms with higher levels of sustainable disclosure lead to higher shareholder values and increased net profits. Villiers and Marques (2016) argue that higher CSR disclosure rates result in higher share prices, especially in countries with good government, media freedom, and regulations. Dhaliwal et al. (2011) find that firms which initiated CSR disclosure could benefit from a lower cost of equity capital. Based on firm-level data from 31 countries, Dhaliwal et al. (2012) provide extra evidence that disclosure of nonfinancial information is connected with lower analyst forecast error. Also, this relationship is stronger in countries where CSR performance is more likely to have an influence on financial returns.

In a related study, Eccles, Krzus and Serafeim (2011) find that the stock market is interested in a company's degree of transparency of ESG performance and policies. They show that among five groups of nonfinancial metrics data in Bloomberg, including Carbon Disclosure Project (CDP), environmental metrics, social metrics, governance metrics and disclosure rating, disclosure rating received the highest level of concern based on the calculation of the average hits per metric (AHPM). 'Due to using effective ESG management to capture revenue-generating opportunities, achieve cost savings and minimize the downside of failures, fines and lawsuits' (Eccles, Krzus and Serafeim, 2011: 7), I assume that there is less risk when investing in companies which are more transparent because there is also more certainty that the companies can deliver on performance, and therefore more transparent companies should receive lower penalties on financial returns when involved in negative issues.

6.2.3 The possible buffers

Only a few studies have investigated the relationship either between ESG disclosure and financial performance, or between CSiR and financial performance. Therefore, it

is unusual to combine the three types of measurements together since there is a lacking of clear findings as to whether ESG disclosure can act as an insurance protector for firms engaged in CSiR behaviour. The previous studies have examined whether corporate philanthropy (Williams and Barrett, 2000), CSR activities (e.g., Godfrey, Merrill and Hansen, 2009; Kotchen and Moon, 2012), firm size (Colwell, Noseworthy and Alexeev, 2010), and corporate reputation (Janney and Gove, 2011) can provide a buffer effect for firms involved in negative events.

Studies examining the buffer effect claim that firms engaged in good ESG performance can improve their reputation and corporate image, and good behaviour acts as an umbrella when they are involved in scandals. In an earlier study, Williams and Barrett (2000) collect data on the corporate philanthropy and illegal activities of 184 firms continuously listed on the Fortune 500 from 1991 to 1994, and show that corporate philanthropy significantly offset the negative effects of criminal activity on corporate reputation.

In an in-depth study, Godfrey, Merrill and Hansen (2009) examine whether shareholders gain value from CSR activities when a firm is involved in negative incidents. Based on 178 negative legal actions against firms from 1993 to 2003, they extend the risk management model by theorising that *institutional* CSR activities are more likely to create goodwill and offer insurance-like protection than *technical* CSR activities. They show that several firm and event specific characteristics have insurance-protection effects on firms reported for negative behaviour. The results support the view that low-CSR firms and high-CSR firms experience negative news coverage to a lesser or greater magnitude.

Similar to Godfrey, Merrill and Hansen (2009), Kotchen and Moon (2012) investigate whether companies engaged in CSR to provide insurance protection for CSiR behaviour, and find that heterogeneity existed among industries, where the effect is more significant in industries with greater public scrutiny. The social category is the most salient within-category relationship among the categories of community relations, environment, and human rights, which means that CSiR activities in the social category are more likely to increase CSR activities in the social category. However, when companies engage in CSiR activities related to corporate governance, these companies tend to increase their CSR activities in other categories, such as

community relations, environment, and human rights to offset the negative effect of CSiR behaviour. The study points out the problems of media exposure: does media exposure of CSR help to improve the media exposure of CSiR, or does the companies' intention to increase the CSR activities happen after the media exposure of CSiR?

Drawing on CSR and reputation theory, Janney and Gove (2011) investigate the financial impact of firms' involvement in the US stock option backdating scandal. They show that firms with better reputations for CSR can moderate revelations about misbehaviour. The markets react significantly negatively to stock option backdating scandals; however, firms with good reputations for CSR partially benefit from scandal revelations. This does not mean that firms should consistently undertake CSR initiatives to get out of trouble. Instead, CSR activities make a scandal look more like an aberration to a firm's general positive identity and reputation.

Based on an event study of ten oil and gas companies from the Fortune 500 list in 2006, Colwell, Noseworthy and Alexeev (2010) investigate whether a firm's market value influences the impact of negative environmental incidents on the firm's financial performance. They categorize ten companies into two groups: a higher market capitalization group and a lower market capitalization group and performed an analysis using the Mackinlay (1997) event study method. The results show that the stock market does not financially penalise all adverse environmental behaviour. However, there are two limitations to their study. Firstly, as they only considered a small number of companies in a single industry, these results may not be strong enough to represent the whole industry. Secondly, there is no big difference in the market capitalization of the top five and bottom five companies in the Fortune 500 ranking.

The greater a firm's positive actions in terms of social responsibility, the better its reputation; the greater a firm's negative actions concerning social responsibilities, the worse its reputation. Melo and Garrido-Morgado (2012) support this point by investigating the influence of CSR activities on firm reputation. The results show that five dimensions (employee relations, diversity issues, product issues, community relations, and environmental issues) of CSR have a significant impact on corporate reputation, and this impact is moderated by the industry of the firm.

When investors try to assess corporate information for ESG performance, it is important for them to obtain as much clear information as possible to make financial decisions. In fact, transparency is one of the most important factors for evaluating the quality of ESG information as the information can be understandable and easily accessed by investors. Research shows that scientists and professionals will base their decisions on personal understanding when assessing the quality of information; when they feel the information is more understandable, they are more willing to agree to the information (Trout, 2002). Psychological research has shown that when the information receiver feels better, this personal feeling lays the foundation for evaluating information. The better the information receiver feels, the more likely they will agree with the information (e.g., Cesario, Grant and Higgins, 2004; Cesario and Higgins, 2008).

Thus, when the transparency of the ESG information is clear, investors are more likely to understand better, which benefits companies by increasing the confidence level of investors and offering a better chance of obtaining capital from them. If companies have the same level of ESG information but different levels of transparency, investors tend to believe the companies with more transparent information will perform sustainably better. If companies have a low level of transparency, potential investors may think they only just fulfill their regulatory responsibilities or are simply following market trends, or they may think their low level of transparency is because the companies are not willing to release negative information.

To summarise, a company's responsible behaviour is more likely to improve that company's image, lower regulatory costs, and improve the company's financial performance from different angles. When companies release more transparent ESG information, investors are more likely to believe the companies have good reputations, lower operating risks, better expectations for future profitability and share values, and are therefore more willing to invest in this kind of company.

6.3 Data

6.3.1 Data source

The data are drawn from various data sources. Indicators of ESG disclosure and transparency are collected from Bloomberg, while data regarding negative ESG news are drawn from RepRisk. Financial data are collected from Datastream.

6.3.1.1 Bloomberg ESG disclosure

To measure CSR or ESG performance, many studies use KLD data (e.g., Jo and Na, 2012; Oikonomou, Brooks and Pavelin, 2014b) as the main data source; however, Oikonomou, Brooks and Pavelin (2014b) point out that KLD is not a perfect data source for CSR and many studies argue that there are some limitations to the KLD database. In this study, I use Bloomberg ESG disclosure rating to measure transparency, which has been used in earlier studies such as Eccles, Ioannou and Serafeim (2014), who claim that high ESG disclosure ratings are a measure of sustainability since their results support the claim that high sustainability companies are more likely to be more engaged with stakeholders, more long-term oriented and exhibit higher measurements for non-financial information disclosure.

It is well known that a firm's CSR performance is difficult to measure, especially transferring qualitative CSR information into quantitative terms. The main difference between Bloomberg ESG disclosure and other CSR databases is that the variables included in Bloomberg are more objective, based on standardised measures. Other types of CSR measures such as KLD and ASSET4, usually use a company-specific method to transfer direct data to self-constructed variables, therefore it is unlikely for the raw data to be visible or how the methodology works. In contrast, Bloomberg makes all the raw data available in sub-variables, therefore the advantage is that researchers are able to analyse the data in a more detailed manner and increase the trustworthiness and reliability of the data used in the research.

As specified by Bloomberg, the proprietary Bloomberg ESG disclosure scores are based on the extent of a company's environmental, social and governance (ESG) disclosure. The disclosure data is based on more than 120 indicators for more than 5000 publicly-listed companies worldwide and the database coverage is growing over

time. Each separate ESG dimension includes multi indicators, such as resource efficiency, climate risks, energy consumption, recycling, emissions management, community relations, workforce development, health and safety policies and board structures. The information sources for evaluating ESG disclosure are mainly from company reports such as annual reports, CSR reports, environmental reports, etc. They also rely on corporate news releases and website information.

The ESG disclosure rating ranges from 0 to 100, which interpret companies' disclosure from a minimum amount of ESG data, to disclosing data under every type collected by Bloomberg. The higher the ESG disclosure rating, the higher the level of transparency in terms of ESG disclosure quality and practices. The ESG disclosure data is available on an annual basis, and I use the ESG Disclosure ratings from 2007 to 2012. Each data point is weighted based on level of importance. For instance, greenhouse gas (GHG) emissions carry greater weight than other disclosures. Each score also considers the impact of the industry, so each company is only evaluated in terms of data relevant to its industry sector. For instance, a bank's environmental disclosure rating has the lowest weighting compared to its social and governance rating. The ESG Disclosure rating is calculated based on the individual environmental, social and governance disclosure ratings.

6.3.1.2 RepRisk data

In chapter 3, I provided substantial details of the RepRisk database, arguably the most comprehensive and trustworthy source for measuring CSiR behaviour. Since I use different parts of the RepRisk dataset in the empirical chapters, I restate the RepRisk data used for this chapter to clarify the process. The negative news data is drawn from RepRisk, and the dataset consists of two main parts: news data and the rating index. The news data is derived from the news information provided by independent third parties including international and local media, government sites, NGOs, newsletters, social media, and blogs. Once companies become involved in negative issues and are consequently exposed, RepRisk records the date, company information, source name, issue type, novelty rating, severity rating, and source rating in their database.²¹ Please

²¹ Novelty rating describes how new and salient the news presented on a given topic is and whether the company, project, or government has been criticised earlier on this topic.

note that due to the lag effect of news reporting, issues are entered into the database according to the date shown on the news source, rather than the date when the events happened in the company. Based on the news data, RepRisk builds a rating index with quantitative measurements to capture a company's ESG risk. The RepRisk Index is calculated on a monthly basis, based on the frequency and timing of the news information, and the influence of novelty rating, severity rating, and source rating. The score ranges from zero to 100, which means the lower the score, the fewer risks the company has.

In this study, I only use news data from the RepRisk dataset, since the main purpose of this study is to investigate the stock performance of firms with negative ESG behaviour in single dimensions. Table 6.1 shows the three main categories of concern: environment, social, corporate governance. I combined 'community relations' and 'employee relations' as proxies for specific 'social' performance criteria.

Severity rating in RepRisk describes the graveness and harshness of an incident or an accusation regarding the violation of international standards. It reflects, firstly, the type of an incident or accusation; secondly, it reflects its extent, and thirdly its consequences for the environment or people.

Source rating is a measure of the influence of the source. A large source rating indicates that the source is read by key stakeholders and decision-makers and/or by a large number of individuals.

Table 6.1 ESG Categories in RepRisk database

Environment	Social		Corporate governance
	Community relations	Employee relations	
- Global pollution and climate change	- Human rights abuses, corporate complicity	- Forced labor	- Corruption, bribery, extortion, money laundering
- Local pollution	- Impacts on communities	- Child labor	- Executive compensation
- Impacts on ecosystems and landscapes	- Local participation issues	- Freedom of association and collective bargaining	- Misleading communication
- Overuse and wasting of resources	- Social discrimination	- Discrimination in employment	- Fraud
- Waste issues		- Health and safety issues	- Tax evasion
- Animal mistreatment		- Poor employment conditions	- Anti-competitive practices

Note: Each column details the issues in the specific category. Please note I combine community relationships dimension and employee relations dimension as the social dimension in this study. Community relationships dimension and employee relations dimension are not separately treated in the portfolio construction process. All principles of the UN Global Compact are addressed.

6.3.2 Sample selection

I collect an extensive sample of US companies listed in combined indexes from the MSCI World Index, which includes large, medium and small market capitalization companies. The combined MSCI Index is a free float-adjusted market capitalization weighted index designed to measure equity market performance. I combine the constituents of indexes for the year of 2010. I collect two main samples of companies: the first sample with negative media coverage requires the companies have the following data available: RepRisk news data, Bloomberg ESG disclosure data and financial performance data. The second sample without negative media coverage only requires the companies to have Bloomberg ESG disclosure data and financial performance data.

The sampling selection process for the companies with negative media coverage follows four steps. The first step screens all US companies with recorded news in RepRisk news database. The second step is to make sure that news data matches the MSCI combined indexes and drops companies do not exist in the MSCI combined indexes. The third step matches companies from the second step with Bloomberg ESG disclosure rating data, and selects companies with at least three years ESG disclosure rating available. The last step is to exclude companies with no ISIN codes in Datastream and delete duplicated companies. Also, I require all companies to have at least 12 months of stock returns data and market values. In the end, I select a final sample of 843 US companies.²² Many studies focusing on the US market use a sample selected from S&P 500; I find that this is not feasible for this study as I am limited to companies with negative news records in the RepRisk database and with ESG disclosure data available in the Bloomberg. If the sample source only used S&P 500, the merged sample size would have been too small.

In the previous empirical chapters, I only consider companies with negative news records in the RepRisk database. In order to compare the difference between companies with and without negative news coverage, I select companies with available

²² The MSCI World Index consists of 24 developed countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK, and the US. More details can be seen at: <http://www.msci.com/products/indices/tools/>

ESG disclosure data but without a RepRisk news record from the MSCI combined index. This sample of companies are generally smaller in size compared with companies with news coverage, which is understandable, since large size companies draw higher media attention.

The second sample without negative media coverage follows similar steps. The first step screens all US companies without negative media coverage in the RepRisk database. The second step ensures that companies without media coverage data match the MSCI combined indexes and remove companies do not exist in the MSCI combined indexes. The third step matches companies from the second step with the Bloomberg ESG disclosure rating data, and selects companies with at least three years of ESG disclosure ratings available. The last step excludes companies with no ISIN codes in Datastream and deletes duplicated companies. Also, all companies should have at least 12 months of data available for monthly stock returns and market value. In the end, the final sample of no negative media coverage contains 674 US companies.

Table 6.2 provides the descriptive statistics of disclosure ratings for companies with and without recorded negative media coverage from 2007 to 2012. In both Panel A and Panel B, the number of companies with ESG disclosure data available increase on a yearly basis and the difference between 2007 and 2008 is large. Two possible causes may explain this issue. Firstly, ESG disclosure data has been available since 2006, therefore 2007 can be considered as the early stage of the database construction, which is normal when compared to other databases. Secondly, the number of companies willing to report ESG issues also increased due to the market and stakeholders' interest.

In Panel A, the mean value of each panel is relatively stable across the sample period, with the trend being higher in later years, which suggests that ESG disclosure is likely to be closely related to a company's policy and should remain stable across the sample period of six years. Compared to social and governance disclosure data, environmental disclosure scores collect fewer data points, and this reveals that it is harder to measure environmental disclosure. Panel B reports the summary statistics of the ESG disclosure data for the sample without negative media coverage. The theory that ESG disclosure is likely to be stable over the sample period still holds good for this sample. Compared

to the sample companies with negative media coverage, the mean ESG disclosure of the sample without negative media coverage is lower.

Table 6.2 Summary statistics of the disclosure data by year

Year of Disclosure	Count	Mean	Median	Maximum	Minimum	Std. Dev.
<i>Panel A: Sample with negative media coverage</i>						
<i>Panel A1: ESG disclosure</i>						
2007	518	20.4411	14.9378	61.9835	1.6529	10.8594
2008	684	20.8670	15.2893	65.7025	3.8278	11.4882
2009	702	22.4925	15.8491	73.5537	1.6529	13.0206
2010	834	22.1739	15.7025	76.3485	3.8278	13.2673
2011	817	23.2590	16.5289	79.2531	2.8926	14.0916
2012	810	24.2378	18.5950	75.9336	7.0175	14.2573
<i>Panel A2: Environmental disclosure</i>						
2007	264	18.2896	13.9535	55.3719	1.3793	13.9847
2008	366	18.6159	14.7287	66.6667	0.7752	15.1144
2009	397	21.1443	17.0543	76.7442	0.7752	16.9183
2010	431	22.1870	18.6207	78.5124	0.7752	17.0045
2011	448	23.4854	21.3178	84.2975	1.3793	17.8316
2012	468	23.9179	19.8959	79.3388	1.3793	17.9467
<i>Panel A3: Social disclosure</i>						
2007	461	14.9215	8.7719	68.7500	3.1250	14.4290
2008	607	15.4104	8.7719	73.4375	3.1250	14.5392
2009	623	17.3566	8.7719	82.4561	3.1250	15.7568
2010	637	19.3327	14.0351	82.4561	3.1250	16.2060
2011	616	21.0171	17.1875	76.5625	3.1250	16.5053
2012	638	22.5142	19.2982	76.5625	3.1250	16.3487
<i>Panel A4: Corporate governance disclosure</i>						
2007	518	52.6751	51.7857	71.4286	3.5714	6.3810
2008	684	52.6290	51.7857	76.7857	3.5714	6.4339
2009	701	53.3753	51.7857	76.7857	3.5714	6.8267
2010	834	53.6849	51.7857	82.1429	14.2857	6.3301
2011	817	54.0479	51.7857	85.7143	3.5714	6.7275
2012	810	54.1623	51.7857	85.7143	28.5714	6.5183
<i>Panel B: Sample without negative media coverage</i>						
<i>Panel B1: ESG disclosure</i>						
2007	392	13.2312	12.8099	50.4132	0.8772	4.6034
2008	624	13.6642	12.8099	60.0877	1.6529	5.0697
2009	659	14.0656	12.8099	63.6364	1.6529	5.8863
2010	668	14.6527	13.2231	65.2893	3.5088	6.2483
2011	659	15.1563	13.2231	71.9298	7.4561	7.0097
2012	638	15.8988	14.0496	72.8070	7.0248	7.4542

Note: The table reports the descriptive information for ESG disclosure rating and separate environmental, social and governance disclosure ratings between 2007 and 2012. Panel A presents the ESG disclosure rating, environmental, social and corporate governance disclosure rating for the sample with negative media coverage, respectively. Panel B presents the ESG disclosure rating for the sample without negative media coverage. The first column reports the year of disclosure. The second column displays the number of companies with disclosure data available. The rest of the columns show the statistics for the disclosure data. Due to a lot of missing data in the environmental disclosure category, I only use the information of ESG disclosure for companies without negative media coverage.

Since there are industrial differences in the disclosure score, more detailed comparison needs to be made across industries. Table 6.3 provides the descriptive information for disclosure ratings for ESG and separate E, S, and G categories by industry between 2007 and 2012. The industry is categorised by ten MSCI sectors. The sample size of this study is considerably larger than other studies focused on the US market.

In Panel A. Three sectors – industrials, consumer discretionary and financials – comprise a large proportion of the total sample companies, whereas the telecommunication service sector only has four firms in the sample. The remaining sectors evenly distribute across sectors. In terms of the reported average ESG disclosure scores for each industry and each year, I find no big differences between the different industrial sectors and across different years. One exception is the telecommunications sector, whose lowest score is 26.9807 in 2007 and highest score is 47.4623 in 2012. Since this sector contains the smallest sample, this may account for why the scores are not evenly distributed. In separate E, S, and G disclosure categories, I find the governance disclosure rating maintains the highest score compared to social and environmental disclosure ratings. Also, the governance disclosure score has greater similarity across years and sectors than the social and environmental disclosure ratings. Generally, disclosure ratings tend to increase gradually during the sample period.

Panel B displays the ESG disclosure rating by industry for the sample without negative media coverage. Similarly, I find that most of the mean ESG disclosure scores are lower compared to the sample with negative media coverage, which indicate that the sample of companies without negative media coverage are smaller in size.

Table 6.3 Summary Statistics of the disclosure score by sector

Sector	NO.	Obser.	2007	2008	2009	2010	2011	2012
<i>Panel A: Sample with negative media coverage</i>								
<i>Panel A1: ESG Disclosure</i>								
10 Energy	81	417	18.9863	19.7879	20.6368	20.2708	21.5341	22.5670
15 Materials	83	428	20.7141	21.6042	23.6185	24.0656	25.5568	26.2819
20 Industrials	125	634	20.1618	19.9394	22.0651	21.0698	21.9926	23.5888
25 Con- Discre.	154	787	18.7869	19.5332	19.7277	20.3012	21.0858	22.0956
30 Con- Staples	84	425	24.7473	24.0308	26.2681	24.3623	25.8444	25.7343
35 Health Care	71	355	20.9366	20.6095	22.5012	20.8947	22.2524	23.3121
40 Financials	115	633	16.6246	17.7824	19.0201	19.4193	20.8567	21.8682
45 IT	68	348	25.1899	25.1518	26.8738	26.3843	27.8268	28.2287
50 Teleco-	4	23	26.9807	34.0846	36.8623	40.5673	34.2928	47.4623
55 Utilitites	58	315	23.6836	22.8926	26.6677	27.1161	27.3922	28.8660
Total	843	4365						
<i>Panel A2: Environmental Disclosure</i>								
10 Energy	81	224	18.7223	16.4257	14.2686	15.9953	17.9671	18.0063
15 Materials	83	263	16.6620	17.8594	21.5138	23.7499	25.4570	25.6765
20 Industrials	125	347	17.5990	16.0680	18.4053	20.3509	21.3785	22.8181
20 Industrials	154	341	16.5539	19.0197	20.3502	20.7746	22.3863	22.8178
25 Con- Discre.	84	246	23.9893	23.3119	25.9996	23.9923	27.0081	27.4251
35 Health Care	71	147	23.6047	25.4404	28.7496	27.4597	29.3189	30.7586
40 Financials	115	274	12.1567	14.2798	18.689	20.6783	22.3216	21.1076
45 IT	68	224	26.0972	25.1177	28.9421	29.8347	29.6962	29.4837
50 Teleco-	4	23	15.4235	22.4239	26.6922	31.3387	24.8346	42.5474
55 Utilitites	58	285	15.3782	14.9014	18.8948	20.0534	19.6343	20.8895
Total	843	2374						
<i>Panel A3: Social Disclosure</i>								
10 Energy	81	324	15.0639	16.8161	17.7213	20.7731	23.0294	23.4843
15 Materials	83	343	15.7465	17.2952	19.2067	22.2200	25.5701	26.4573
20 Industrials	125	484	15.0933	15.6393	18.4407	20.7343	23.0761	25.4637
20 Industrials	154	652	12.1125	12.6954	13.5227	15.3980	16.8421	18.7719
25 Con- Discre.	84	340	21.2476	20.6699	25.2385	24.8956	25.5482	26.1808
35 Health Care	71	275	15.2047	14.8228	16.5360	19.2982	20.6628	21.6009
40 Financials	115	526	8.7269	9.6561	10.8839	11.7780	13.8343	15.6056
45 IT	68	308	16.8975	16.0874	18.6717	21.2121	24.0318	24.2966
50 Teleco-	4	23	24.6025	37.8838	40.2275	43.7432	31.2432	42.7083
55 Utilitites	58	307	21.1837	19.4404	21.3757	23.3492	23.1290	26.4641
Total	843	3582						

Table 6.3 Summary Statistics of the disclosure score by sector continued

Sector	NO.	Obser.	2007	2008	2009	2010	2011	2012
<i>Panel A4: Governance Disclosure</i>								
10 Energy	81	417	51.8170	52.2465	52.9018	53.1420	53.4341	53.7338
15 Materials	83	428	53.0660	52.6245	53.7815	54.6167	55.3571	55.3797
20 Industrials	125	634	52.8522	52.1907	53.1523	53.1286	53.0738	53.4077
20 Industrials	154	786	51.7631	51.3792	51.8841	52.3887	53.0984	53.0663
25 Con- Discre.	84	425	54.6769	53.6539	54.1492	54.3580	54.6902	54.3675
35 Health Care	71	355	52.8968	52.8380	53.5714	53.0797	53.8113	53.9835
40 Financials	115	633	51.4743	52.2759	52.7381	53.3028	53.4618	53.7769
45 IT	68	348	55.0824	55.1587	55.2956	55.3305	55.1648	54.8901
50 Teleco-	4	23	54.9107	54.9107	54.9107	56.6964	58.0357	63.6905
55 Utilitites	58	315	52.5261	53.2143	55.1658	56.1717	56.8059	57.1092
Total	843	4364						
<i>Panel B: Sample without negative media coverage</i>								
<i>Panel B1: ESG disclosure</i>								
10 Energy	28	160	12.6498	12.9752	12.9752	13.6975	12.4572	12.1766
15 Materials	34	190	13.8033	14.5240	15.2150	15.2628	15.3365	14.9962
20 Industrials	114	629	12.8769	12.9767	13.4515	13.7026	13.8046	13.0695
20 Industrials	98	521	13.4948	13.4629	13.8726	13.8013	13.7236	13.6289
25 Con- Discre.	28	154	16.6709	16.8186	17.8649	18.7947	18.8174	19.1847
35 Health Care	76	419	12.1742	12.5948	13.6970	13.4268	13.4130	13.1952
40 Financials	169	922	13.1677	13.3541	13.4572	13.6513	13.8452	13.4906
45 IT	99	549	13.7702	14.0859	14.3052	15.2766	14.7813	14.4585
50 Teleco-	10	53	12.8944	12.9014	12.8509	13.8965	13.7566	13.2194
55 Utilitites	18	91	13.4834	14.3699	16.0269	16.5463	16.4376	15.9596
Total	674	3688						

Note: The table reports the summary statistics of the disclosure rating by sector for companies with news from 2007 to 2012. Panel A presents the ESG disclosure rating, environmental, social and corporate governance disclosure rating for the sample with negative media coverage, respectively. Panel B presents the ESG disclosure rating for the sample without negative media coverage. Column one displays the sector category. Column two reports the number of companies per sector. Column three displays the total number of observations per sector. The rest of the columns reports the average disclosure score for each sector in a specific year. Due to a lot of missing data in the environmental disclosure category, I only use the information of ESG disclosure for companies without negative media coverage.

6.4 Portfolio level analysis

6.4.1 Portfolio construction

In order to investigate whether any protective nature of ESG disclosure exists between negative media coverage and firm financial performance, this should, ideally, be based on high and low ESG disclosure being separated by robust methods. Therefore, the first step of the portfolio construction is to explore the protection of ESG disclosure by dividing high and low ESG disclosure portfolios, by adjusting for both sector and size, and then separately investigating the influence of sector and size. As specified in the data section, I select 843 MSCI index matched US companies with available ESG disclosure data and RepRisk negative media coverage data. I only choose companies with at least three years of available ESG disclosure rating data. Since the ESG disclosure data are reported annually, previous studies, for instance, Jo and Na (2012) simply calculate the average of the available ESG scores for different years for each company to divide the sample. I apply a more appropriate and advanced version by firstly splitting the sample into three size categories for each MSCI sector in each year based on market capitalization, and then calculating the average ESG disclosure rating for each size and sector category.

As shown in equation below, for the average ESG disclosure rating, I calculate the average ESG disclosure ratings for all firms i at year t divided by the total maximum possible number of ESG disclosure ratings during year t . To make sure that the results are not driven by both company size and sector, firms with above-average ESG disclosure ratings in the assigned size and sector group are allocated to the high ESG disclosure group, and the other companies assign to low the ESG disclosure group. Since I also separately consider the companies involve in environmental news, social news and governance news, I apply the same method for calculating the E, S and G disclosure rating. In total, there are eight groups of portfolios representing the ratings of high and low ESG disclosure, separate E, S and G disclosure and for the respective category of news.

$$AverageESGdisclosure_{it} = \frac{\sum ESGdisclosure_{it}}{N_{it}}$$

Where $\sum ESGdisclosure_{it}$ is the sum of available ESG disclosure scores for firm i , and N_{it} is the count of years of available ESG disclosure scores.

The second step of the portfolio construction is to understand whether firms' transparency levels of ESG information provide protection for their irresponsible behaviour in the long term. Simply speaking, the first step is to divide companies into high and low disclosure category while the second step is to add the first step information into the investment process. The main data source for step one is ESG disclosure score while the main data source for step two is CSiR behaviour of companies. For the long-term effect, I hold the stock for a specific period of time after each news coverage according to the severity levels of the events. Since the severity levels are divided by 1, 2, 3, and higher than 3, I include the stocks in the portfolios over 6, 12, 18, and 24 months accordingly. In the long term, I could also apply even longer time periods of news coverage to the portfolio analysis; however, I expect similar results would be generated. In the robustness section, I test the different holding period effects on the stocks for 1, 3, 6, and 12 months accordingly.

The third step of the portfolio construction process is to examine the differences of four types of portfolios listed below based on the consideration of the news coverage periods and extra sample companies without negative media coverage. I follow step one and step two to examine companies inside the news coverage periods and those outside the news coverage periods. As mentioned, in step two I hold the stock for a specific period of time after each piece of news coverage, which will be interpreted as the first group of portfolios 'inside of negative media exposure'. The time periods that are not included in the portfolios 'inside of negative media exposure' will be included in the portfolios 'outside of negative media exposure'. Note that these two types of portfolios use the sample of 843 companies with negative media coverage. Based on the sample of 674 US companies with no negative media coverage, I only follow step one of the portfolio construction process since there is no negative media coverage data. I name this type of portfolio as 'without negative media exposure'. For the last type of portfolio, I use long-short strategy that longs stocks 'without negative media exposure', and shorts stocks 'within negative media exposure'. I name this type of portfolio as 'long without negative media exposure short inside of negative media exposure'. The details of four types of portfolios are explained below:

1) Portfolios of ‘inside of negative media exposure’ are portfolios constructed based on news coverage using the same method as the main results. These portfolios are the same as shown in the main analysis; however, I also update the market benchmark to include all companies with and without news.

2) Portfolios of ‘outside of negative media exposure’ are portfolios constructed by excluding all news coverage time periods captured in the main portfolio. To put it simply, once I calculate the monthly simple returns for each firm in the news sample, the news coverage periods are included from the main analysis, all the rest of the monthly returns of each firm are included in the control portfolio. This strategy is to compare how firms performed inside and outside of the news periods.

3) Portfolios of ‘without negative media exposure’ are portfolios constructed by an additional sample of companies without negative media attention. I apply the same method to divide companies into the high and low disclosure groups identified in the portfolio construction section.

4) Portfolios ‘long without negative media exposure short inside of negative media exposure’ are constructed by longing stocks ‘without negative media exposure’, and shorting stocks ‘within negative media exposure’. Portfolios are adjusted in each month.

In addition, this chapter also compares the difference between individual dimensions, and provides additional analysis on sector and size, then compares the proactive effect of during the financial crisis period and after the financial crisis period.

6.4.2 Model specification

To measure portfolio performance, I then continue the analysis by estimating the Carhart (1997) four-factor model to compare the constructed portfolios with the benchmark portfolio. The regression model is estimated as follows:

$$R_{it} - R_{ft} = \alpha_i + \beta_i (R_{mt} - R_{ft}) + \gamma_i SMB_t + \delta_i HML_t + \lambda_i MOM_t + \varepsilon_{it}$$

Where $R_{it} - R_{ft}$ and $R_{mt} - R_{ft}$ represent the excess return of the portfolio and the broad market over the risk-free asset returns. α_i denotes Jensen (1968) alpha, which can be interpreted as the portfolio’s systematic return component above or below the

return achieved by the broad equity benchmark for the same level of systematic risk. β_i is the portfolio's systematic exposure to the broad market portfolio. Where γ_i , δ_i and λ_i measure the exposure of a portfolio to the small cap, value, and momentum investment styles. The size factor SMB_t (small minus big) represents the difference in the returns of small stock portfolios and big stock portfolios. The book to market ratio factor HML_t (high minus low) represents the difference in the returns of investing high book-to-market ratio portfolios (top 30%) and low book-to-market ratio portfolios (bottom 30%). The momentum factor MOM_t represents the difference in the returns of winner stock portfolios (top 30%) and loser stock portfolios (top 30%). ε_{it} represents the error term.

The benchmark factors for these investment styles are obtained from the Fama-French database.²³ The market excess returns are derived from the value-weighted portfolio of all CRSP firms incorporated in the US and listed on the NYSE, AMEX, or NASDAQ that had a CRSP share code of 10 or 11 at the beginning of month t , good shares and price data at the beginning of t , and good return data for t minus the one-month Treasury bill rate (from Ibbotson Associates). It appears that the market benchmark is major determinant of abnormal returns, so I compare the results of using different market returns. I proxy the market benchmark in two ways: the market excess return derived from the Fama-French database, and the return on a value-weighted portfolio of all the equities in the sample.²⁴ I compare the difference between using these two different market factors in the next section.

Cremers, Petajisto and Zitzewitz (2013) argue that the Fama-French market factor constructed by the value-weighted excess returns on all assets in the Centre for Research in Security Prices (CRSP) includes not only US common equity, but also non-US firms, closed-end funds, REITs and other securities, and that these other assets dramatically underperformed US common stocks. Therefore, I expect that alpha levels

²³ It is common to use the Fama-French database for the US context studies; however, there is limited usage for studies with mixed countries sample or studies focusing only on emerging countries. The other popular source for benchmark factors is Style Research, which has been applied in this study. I found the results by using Fama-French factors from Fama-French database and Style Research are rather similar.

²⁴ There are other market benchmark options, such as the MSCI USA index, which is a measure from constituting 621 large- and medium-capitalization stocks in the US stock market and covers approximately 85% of the US free float-adjusted stock market capitalization, and the S&P 500 index.

under Fama-French market benchmark would tend to be positive. I provide an alternative market factor constructed by the value-weighted excess returns of all the companies in the sample.

6.5 Analysis of results

In this section, I firstly discuss the results of the portfolios constructed using the portfolio construction method discussed in the previous section. Having done so, I compare the differences between the high and low ESG disclosure, as well as the long-short portfolios. I then split the sample of companies from different sectors and sizes, and do the same for further subsample analysis. I also compare the differences of individual dimensions of ESG disclosure. Lastly, I discuss the results comparing the difference during and after the financial crisis.

6.5.1 Main analysis

To investigate whether firms with high ESG disclosure survive better in the context of negative CSiR news, I firstly allocate companies to high and low disclosure portfolios. As mentioned in the sample selection process, I separate the companies into high and low ESG disclosure by the average ESG disclosure score in matched sector and size groups in a specific year. I evaluate a specific period of financial returns after each piece of media coverage by considering its severity level. Since the severity levels are divided into 1, 2, 3, and larger than 3, I hold the companies in the respective portfolio for 6, 12, 18, and 24 months accordingly. In addition, in each high or low ESG disclosure portfolio, I further examine the portfolios including inside the period of negative media coverage, outside the period of negative media coverage and without media coverage.

To compare the difference between high and low ESG disclosure portfolios, Table 6.4 reports the descriptive statistics of naturally logged portfolio returns. All the portfolios included in the main analysis are reported. Panel A shows the portfolios inside of the negative media exposure. Panel B presents the portfolios outside the negative media exposure. Panel C displays the results for the sample of companies without negative media exposure during the full sample period. Panel D longs portfolios without negative media exposure and shorts portfolios inside the period of negative media

exposure. In Panels A, B and C, I present three portfolios: high ESG disclosure, low ESG disclosure and long-short portfolio which longs high ESG disclosure portfolio and shorts low ESG disclosure portfolio. Since Panel D is the main long-short strategy applied to Panel C and Panel A, there is no long-short portfolio within this panel.

Portfolio returns in all the panels have a positive mean except for the long-short portfolios in Panel A and Panel C, and the long-short high ESG disclosure portfolio in Panel D, although negative mean does not necessarily indicate that the portfolios underperformed the market benchmark. I find that the mean values of high and low ESG disclosure portfolios in both Panel A and Panel B are similar, however, the mean of the low ESG disclosure portfolio is much higher than the high ESG disclosure group in Panel C, which suggests that firms with higher transparency perform worse if they have not been covered with negative news. I also find that the standard deviation of Panel C is higher than that of Panel A and Panel B, because the companies without negative news coverage are smaller in size. These portfolios are sector and size adjusted based on ESG disclosure scores, to ensure that the better performance of high ESG disclosure portfolios are not simply because the companies come from certain industries or are of particular sizes that happen to enjoy stronger returns.

Table 6.4 Descriptive statistics of portfolio returns of the main analysis

Portfolios	Mean	Median	Maximum	Minimum	Std. Dev.
<i>Panel A: Inside of negative media exposure</i>					
High	0.0078	0.0137	0.0986	-0.1401	0.0479
Low	0.0079	0.0106	0.1448	-0.1816	0.0579
Long-short	-0.0001	0.0002	0.0710	-0.0633	0.0211
<i>Panel B: Outside of negative media exposure</i>					
High	0.0089	0.0143	0.1525	-0.1897	0.0585
Low	0.0085	0.0188	0.1103	-0.1589	0.0514
Long-short	0.0004	0.0001	0.0422	-0.0429	0.0125
<i>Panel C: Without negative media exposure</i>					
High	0.0040	0.0108	0.1705	-0.2445	0.0725
Low	0.0119	0.0187	0.1470	-0.1978	0.0593
Long-short	-0.0079	-0.0066	0.0579	-0.0467	0.0225
<i>Panel D: Long without negative media exposure short inside of negative media exposure</i>					
High	-0.0038	-0.0049	0.0890	-0.1043	0.0336
Low	0.0040	0.0027	0.0410	-0.0464	0.0173

Note: This table provides summary statistics of the naturally logged portfolio returns of both equal-weighted and value-weighted portfolios. The first column displays the type of news and the second column shows the disclosure level. 'High' and 'Low' denote portfolio formed in high disclosure and low disclosure level. The portfolio estimates from January 2007 to July 2012 on a monthly basis.

Table 6.5 summarises the main results of the protection of ESG disclosure, with the separation of high and low ESG disclosure portfolios based on the Carhart model. The table shows that risk factors including market risk, size, value, and momentum have significant influence on the portfolio excess returns as most of the coefficients are significant. The adjusted R square is relatively high for all panels except for Panel D, which shows the Carhart model is a good fit. Note that long-short portfolios generally have low adjusted R-squared statistics as the portfolio excess returns have low correlations with the market benchmark. All the portfolios are value-weighted as companies of various sizes are included in the sample. The equal-weighted analysis is provided in the robustness section.

As shown in Panel A and Panel B, all the value-weighted portfolios show insignificant abnormal returns. In Panel C, both high ESG disclosure portfolios and long-short portfolios yield significantly negative abnormal returns. Thus, the high ESG disclosure stocks but without negative media coverage perform worse than the self-constructed market benchmark. In addition, buying high ESG disclosure stocks and selling low ESG disclosure stocks without negative media coverage, underperforms in the self-constructed market benchmark by -0.92% (-11.04% annually). In Panel D, I further apply a long-short strategy by longing companies without negative media exposure and shorting companies inside of negative media exposure. The high ESG disclosure portfolio shows significant underperformance of -0.77% (-9.24% annually). Since the long-short portfolio is more representative of the entire sample, by buying low ESG disclosure companies without negative coverage and selling companies inside of negative media coverage, the portfolio can yield a positive abnormal return of 0.33% (3.96% annually) at 10% significance level.

As mentioned earlier, the majority of the companies in the portfolios without negative media coverage are median to small sizes, so the results are contrasted with the impact of ESG disclosure in Panel A and Panel B, where both high and low ESG disclosure portfolio alpha levels are not significant. A possible explanation for the contrasting results could be due to the ESG disclosure data available for the companies without negative media coverage are similar.

Table 6.5 Main analysis

Portfolios	Alpha		Market		SMB		HML		MOM		Adj. R ²
<i>Panel A: Inside of negative media exposure</i>											
High	0.0008	(0.637)	0.9277	(35.187)***	-0.1944	(-4.332)***	0.1332	(2.451)**	0.0381	(2.111)**	0.980
Low	-0.0020	(-1.191)	1.1031	(29.071)***	0.0438	(0.593)	-0.2138	(-2.509)**	-0.0452	(-2.066)**	0.965
Long-short	0.0018	(0.648)	-0.1758	(-2.843)***	-0.2307	(-2.088)**	0.3440	(2.630)**	0.0797	(2.078)**	0.382
<i>Panel B: Outside of negative media exposure</i>											
High	-0.0009	(-0.679)	1.0741	(33.025)***	0.2209	(5.342)***	-0.1497	(-2.294)**	-0.0506	(-3.059)***	0.986
Low	0.0006	(1.376)	0.9704	(132.542)***	0.0030	(0.161)	0.0561	(3.482)***	0.0050	(0.765)	0.997
Long-short	-0.0024	(-1.521)	0.1033	(2.783)***	0.2253	(4.013)***	-0.2090	(-2.600)**	-0.0592	(-2.791)***	0.534
<i>Panel C: Without negative media exposure</i>											
High	-0.0059	(-2.633)**	1.1292	(23.143)***	0.4747	(3.993)***	0.1234	(0.864)	-0.1456	(-2.302)**	0.942
Low	0.0022	(1.374)	1.0100	(22.642)***	0.4863	(7.020)***	-0.0891	(-1.827)*	-0.0333	(-1.761)*	0.965
Long-short	-0.0092	(-4.167)***	0.1188	(2.711)***	-0.0042	(-0.037)	0.2094	(1.617)	-0.1159	(-2.074)**	0.433
<i>Panel D: Long without negative media exposure short inside of negative media exposure</i>											
High	-0.0077	(-3.025)***	0.2011	(3.559)***	0.6765	(5.109)***	-0.0129	(-0.077)	-0.1873	(-3.316)***	0.703
Low	0.0033	(1.770)*	-0.0935	(-2.675)***	0.4500	(7.895)***	0.1217	(1.688)*	0.0082	(0.277)	0.358

Note: Note: This table reports the risk-adjusted performance of portfolios using the Carhart model. Portfolios are adjusted monthly based on the average disclosure score by adjusting for company size and sector. 'High' and 'Low' refers to high ESG disclosure and low ESG disclosure. 'Long-short' presents long high ESG disclosure portfolios and short low ESG disclosure portfolios. Panel A shows the results of the portfolios inside of negative media exposure, whereas Panel B presents the results of portfolios outside of negative media exposure. Panel C displays the results for the sample of companies without negative media exposure. Panel D shows long portfolios without negative media exposure and short portfolios inside the period of negative media exposure. The sample estimation period is from January 2007 to July 2012. The dependent variable is the monthly portfolio stock returns for each setting minus the risk-free rate for that month. The alpha is the monthly abnormal stock returns for the portfolios. *Market* is the market risk exposure using value-weighted market returns minus the risk-free rate. The market benchmark is constructed from the value-weighted portfolio of all the equities in the sample adjusted by ESG disclosure. The rest refers to the estimated coefficients of the SMB (small cap), HML (value), and MOM (momentum) investment style benchmark factors. Negative coefficients imply exposure to the respective opposite investment styles, which are large cap, growth, and contrarian, respectively. The last column shows the adjusted R-squared statistics. *, **, and *** indicating significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

6.5.2 Which sector and size drive results?

I check whether the results remain insignificant by dividing up the sample by different sectors and sizes. As shown in Table 6.6, the results of the risk-adjusted performance of companies in high and low levels of disclosure for portfolios during the period of negative media coverage, outside negative media coverage and without negative media coverage. Since the main purpose is to distinguish companies in different sectors and sizes, I do not report any results from applying a long-short strategy. Panel A shows the results of portfolios by sector, whereas Panel B presents the results of portfolios by company size. Note that I do not consider the telecommunications sector in this table due to the small sample size of this sector. Since the abnormal returns are the key component of the results, I only show abnormal returns in Table 6.6. in Appendix 6A, Table 6.13 and Table 6.14 present the detailed results for each portfolio.

Consider first the results of the sectors in Panel A. The first two columns of results show the impact of CSiR news coverage for companies in high and low ESG disclosure. High ESG disclosure portfolios in the consumer staples sector and consumer discretionary sector yield significant positive abnormal returns of 0.58% (6.96% annually) and 0.36% (4.32% annually), respectively. However, the high ESG disclosure portfolios in the industrial sector show significantly negative abnormal returns of -0.6% (-7.2% annually). However, no significant alphas appear in the low ESG disclosure group. The results show that high ESG disclosure can provide protection for firms in the consumer sector, but provides no protection for firms in other sectors. The next two columns show the results from outside negative media coverage. It is interesting to point out that the low ESG disclosure group in the consumer staples sector has a positive alpha of 0.62% (7.44% annually), which suggests that these companies with low ESG disclosure levels outperform the market outside negative media coverage periods.

The last two columns of the results for Panel A show companies without negative media coverage during the sample period. High ESG disclosure portfolios in the financial and IT sectors show significant negative abnormal returns of -1.14% (-13.68% annually) and -0.87% (-10.44% annually) at the 5% significance level. Both high and low ESG disclosure portfolios in the health care sector show a significant

outperformance of 0.82% (9.84% annually) and 0.98% (11.76 % annually), respectively. Thus, companies without negative media coverage perform better than companies with negative media coverage history in the health sector. These results are consistent with evidence provided in a number of CSR studies. Konar and Cohen (1997) find that the magnitude of stock price decline varies across industries, with the larger decline in the traditionally polluting industries. Lee and Faff (2009) argue that the positive relationship between CSR and financial performance is more significant in industries more likely to have negative exposure on CSR. Kotchen and Moon (2012) investigate whether companies engage in CSR in order to provide insurance protection for CSiR and discover heterogeneity among industries, so the effect is more significant in industries under greater public scrutiny.

I then check the results in terms of company size in Panel B. Generally speaking, small firms perform better than large firms, and companies without negative media coverage perform better than companies with negative media coverage. For the period of negative media coverage, the large firms in the low ESG disclosure portfolio display significantly negative alpha of -0.28% (-3.36% annually) at a significance level of 5%. The results suggest that investors achieve significantly negative abnormal returns by investing in large and less transparent companies if these companies experienced negative media coverage. For companies without negative media coverage, both the high and low ESG disclosure portfolios outperform the market by 0.74% (8.88% annually) and 0.72% (8.64% annually) at a significance level of 5% and 1%, respectively. Note that the outperformance of companies without negative media coverage could also be because the sample companies are generally in smaller sizes.

Table 6.6 Sector and size analysis

Sectors	Inside of negative media coverage		Outside of negative media coverage		without negative media coverage	
	High	Low	High	Low	High	Low
<i>Panel A: Sector Analysis</i>						
10 Energy	-0.0036 (-0.889)	-0.0098 (-0.984)	-0.0040 (-0.608)	-0.0056 (-0.718)	-0.0042 (-0.397)	-0.0002 (-0.026)
15 Materials	-0.0048 (-1.001)	-0.0057 (-0.506)	-0.0045 (-0.702)	-0.0053 (-1.011)	0.0034 (0.700)	-0.0022 (-0.348)
20 Industrials	-0.0060 (-1.895)*	-0.0048 (-1.078)	-0.0016 (-0.474)	-0.0035 (-1.155)	0.0000 (-0.002)	0.0000 (-0.002)
25 Consumer Discre.	0.0036 (1.705)*	-0.0031 (-0.622)	-0.0031 (-0.860)	0.0039 (1.340)	0.0036 (1.130)	0.0025 (0.810)
30 Consumer Staples	0.0058 (2.800)***	0.0030 (0.930)	0.0027 (0.950)	0.0062 (2.570)**	-0.0005 (-0.108)	0.0057 (1.300)
35 Health Care	0.0006 (0.170)	-0.0002 (-0.045)	-0.0044 (-1.092)	-0.0011 (-0.277)	0.0082 (1.881)*	0.0098 (3.055)***
40 Financials	-0.0062 (-1.118)	-0.0017 (-0.469)	-0.0042 (-1.682)*	-0.0028 (-0.915)	-0.0114 (-2.409)**	-0.0003 (-0.081)
45 IT	-0.0009 (-0.204)	-0.0035 (-0.703)	-0.0046 (-1.473)	-0.0059 (-1.164)	-0.0087 (-2.178)**	-0.0005 (-0.147)
55 Utilities	-0.0020 (-0.504)	-0.0035 (-0.600)	-0.0005 (-0.113)	-0.0004 (-0.110)	0.0019 (0.500)	0.0017 (0.380)
<i>Panel B: Size Analysis</i>						
Large	0.0011 (0.850)	-0.0028 (-2.095)**	-0.0004 (-0.239)	0.0018 (1.240)	-0.0082 (-2.301)**	0.0003 (0.170)
Mid	0.0010 (0.430)	0.0009 (0.210)	-0.0005 (-0.199)	-0.0053 (-1.785)*	0.0021 (1.140)	0.0038 (3.248)***
Small	-0.0028 (-0.444)	-0.0006 (-0.104)	-0.0006 (-0.174)	0.0000 (-0.002)	0.0074 (2.393)**	0.0072 (3.374)***

Note: This table reports the abnormal returns of portfolios using the Carhart model. Panel A shows portfolios in each sector and adjust the average disclosure score by sector. Panel B shows portfolios in large, medium and small sizes and adjusts the average disclosure score by company size. The sample estimation period is from January 2007 to July 2012. The dependent variable is the monthly portfolio stock return for each setting minus the risk-free rate for that month. The alpha represents the monthly abnormal return for the portfolios. 'Market' is the market risk exposure which using value-weighted market return minus risk-free rate. The market benchmark is constructed from the value-weighted portfolio of all the equities in the sample and adjusted by ESG disclosure. The rest presents the estimated coefficients of the SMB, HML, and MOM investment style benchmark factors. Negative coefficients imply exposure to the respective opposite investment styles, which are large cap, growth, and contrarian, respectively. The last column shows the adjusted R-squared statistics. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

6.5.3 Subsample analysis

Based on the findings of the previous table, Table 6.7 presents the results of the further sector and size analysis. In the following sections, I only report results for portfolios during and outside periods of negative media coverage, because it is the main research purpose of this study, and also because a different sample is used for companies without negative media coverage. I firstly compare the consumer and non-consumer sectors. Compared to the results in the previous table, both the consumer and non-consumer sectors have adjusted sizes in the portfolios. During the period of negative media coverage, the high ESG disclosure portfolios in the consumer sector show significant positive abnormal returns of 0.45% (5.4% annually) at a significance level of 5%, which is similar to the results in the previous table. Similarly, I find that that low ESG disclosure group of the consumer staples sector outside negative media coverage shows a positive alpha level of 0.38% (4.56% annually). I cannot find any significant alpha levels for the non-consumer sector. This highlights the importance for companies in the consumer sector of being more transparent and disclosing ESG information.

In addition, following the common method of excluding the financial sector in CSR related studies (Enikolopov, Petrova and Stepanov, 2014), I generate the results for all portfolios except the financial sector. Again, the results are similar to the main analysis. The only difference is that the low ESG disclosure portfolio generates significantly positive returns of 0.10% (1.20% annually) at 10% level.

Based on the assumption that good ESG performance only acts as an umbrella for the irresponsible behaviour of large size companies, I adjust the portfolio by only including the large size companies. The results show that the portfolios in the low ESG disclosure group during negative media coverage have significantly negative alpha levels of -0.27% (-3.24% annually) at a significance level of 1%. However, the low ESG group outside negative coverage show significant positive abnormal returns of 0.24% (2.88% annually). Thus, the results still support the main argument that companies in the consumer sector and with higher transparency can have some protection when they experience negative media coverage. Larger companies with

lower transparency are more likely to be penalised by the effect of negative media coverage.

Table 6.7 Further sector and size analysis

Portfolios	Disclosure	Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Inside of negative media exposure</i>							
Consumer sectors	High	0.0045 (2.341)**	0.6968 (18.902)***	-0.1414 (-1.452)	0.1756 (1.496)	0.0412 (1.174)	0.839
	Low	0.0007 (0.273)	0.8539 (15.067)***	0.2767 (3.263)***	-0.1419 (-1.605)	-0.0807 (-1.856)*	0.889
Non-consumer sectors	High	-0.0008 (-0.521)	1.0136 (28.232)***	-0.2166 (-4.037)***	0.1143 (2.164)**	0.0399 (2.199)**	0.970
	Low	-0.0031 (-1.610)	1.1835 (26.804)***	-0.0365 (-0.410)	-0.2348 (-2.232)**	-0.0373 (-1.006)	0.948
Excluding financial sectors	High	0.0010 (0.924)	0.9274 (51.116)***	-0.1850 (-4.487)***	-0.0254 (-0.562)	0.0988 (7.095)***	0.973
	Low	-0.0021 (-0.968)	1.1593 (24.368)***	0.1223 (1.499)	-0.3820 (-3.510)***	0.0189 (0.513)	0.942
Large size only	High	0.0006 (0.475)	0.9279 (32.189)***	-0.2248 (-4.832)***	0.1269 (2.070)**	0.0499 (2.709)***	0.977
	Low	-0.0027 (-1.673)*	1.0812 (30.845)***	-0.0012 (-0.015)	-0.2472 (-3.582)***	-0.0267 (-1.430)	0.961
<i>Panel B: Outside of negative media exposure</i>							
Consumer sectors	High	0.0013 (0.560)	0.9516 (16.155)***	0.4310 (4.005)***	-0.1186 (-1.344)	-0.1287 (-2.798)***	0.930
	Low	0.0038 (2.135)**	0.7789 (19.412)***	0.0993 (1.106)	0.1306 (1.670)*	-0.0205 (-0.610)	0.902
Non-consumer sectors	High	-0.0018 (-1.376)	1.1165 (37.413)***	0.1579 (2.817)***	-0.1660 (-2.602)**	-0.0273 (-1.107)	0.980
	Low	-0.0008 (-1.242)	1.0379 (63.645)***	-0.0270 (-0.805)	0.0280 (1.166)	0.0172 (1.733)*	0.993
Excluding financial sectors	High	-0.0007 (-0.370)	1.1010 (24.614)***	0.2888 (6.155)***	-0.3302 (-3.345)***	-0.0111 (-0.416)	0.972
	Low	0.0010 (1.861)*	0.9705 (55.497)***	0.0173 (0.639)	-0.1030 (-3.140)***	0.0567 (7.241)***	0.991
Large size only	High	-0.0013 (-0.856)	1.0508 (26.450)***	0.2018 (3.070)***	-0.0628 (-0.909)	-0.0514 (-2.327)**	0.968
	Low	0.0024 (2.409)**	1.0872 (40.528)***	0.0632 (1.252)	-0.0971 (-2.406)**	-0.0296 (-1.641)	0.975

Note: This table reports the abnormal returns of portfolios using the Carhart model. Panel A shows portfolios in each sector and adjusts the average disclosure score by sector. Panel B shows portfolios in large, medium and small sizes and adjust the average disclosure score by company size. The sample estimation period is from January 2007 to July 2012. The dependent variable is the monthly portfolio stock return for each setting minus the risk-free rate for that month. The alpha represents the monthly abnormal stock return for the portfolios. ‘Market’ is the market risk exposure which using value-weighted market return minus risk-free rate. The market benchmark is constructed from the value-weighted portfolio of all the equities in the sample and adjusted by ESG disclosure. The rest presents the estimated coefficients of the SMB, HML, and MOM investment style benchmark factors. The last column shows the adjusted R-squared statistics. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

6.5.4 The comparison of individual dimensions

To understand whether individual dimensions of disclosure offer protection for firms experienced negative media coverage, I perform a similar analysis based on the method described in the method section. Unlike the portfolios that only considered ESG disclosure, and to be included in the portfolio, a firm has to meet the conditions of the identified disclosure group and match the type of media coverage in a specific year. Similarly, I created another 12 portfolios treating ESG in different dimensions.

Table 6.8 summarises the results of the Carhart model for portfolios separated into individual dimensions. Panel A shows the results in the period of negative media coverage. The low disclosure group in the governance dimension exhibits significantly negative abnormal returns of -0.31% (-3.72% annually). Panel B displays the results of outside negative media coverage. High disclosure portfolios in both the environmental and social dimensions yielded significantly negative abnormal returns of -0.18% (-2.16% annually) and -0.26% (-3.12% annually), respectively.

The results are in line with Brammer and Pavelin (2006), indicating that individual dimensions of corporate social performance have different reputational impacts which are contingent across industries. However, the results are not consistent with Qiu, Shaikat and Tharyan (2016) findings, which show that compared with environmental and governance disclosure, the firms with higher social disclosure have higher market values driven by higher expected growth rates in the cash flow of these companies. The results show that firms lose market value with low governance disclosure in the situation where that such firms are exposed to negative governance related to media coverage. In a related study, Kotchen and Moon (2012) investigate whether companies engaged in CSR in order to provide insurance protection for CSiR and find that CSiR relating to corporate governance leads to increasing CSR activities in most other categories. They argue that when companies engaged in CSiR activities related to corporate governance, these companies tend to increase CSR activities in other categories, such as community relations, the environment and human rights to offset the negative effect of CSiR behaviour.

Table 6.8 Individual dimensions

Portfolios	Disclosure	Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Inside of negative media exposure</i>							
Environment	High	0.0009 (0.743)	0.9240 (29.729)***	-0.2745 (-4.314)***	0.1514 (2.632)**	0.0629 (3.084)***	0.970
	Low	-0.0014 (-0.547)	1.0521 (18.094)***	-0.0252 (-0.244)	-0.1416 (-1.435)	-0.0709 (-2.615)**	0.924
Social	High	0.0010 (0.675)	0.9237 (28.719)***	-0.2000 (-3.993)***	0.1638 (2.646)**	0.0491 (2.922)***	0.971
	Low	-0.0010 (-0.525)	1.0646 (26.619)***	0.0034 (0.048)	-0.1831 (-1.803)*	0.0108 (0.411)	0.946
Governance	High	0.0008 (0.447)	0.9666 (36.015)***	-0.3461 (-5.008)***	0.1672 (2.429)**	0.0222 (1.167)	0.946
	Low	-0.0031 (-1.671)*	0.9996 (22.924)***	-0.0001 (-0.001)	-0.1468 (-1.559)	-0.1294 (-3.892)***	0.917
<i>Panel B: Outside of negative media exposure</i>							
Environment	High	-0.0018 (-1.683)*	1.0403 (55.811)***	0.2010 (4.223)***	-0.0567 (-0.979)	-0.0623 (-2.695)***	0.981
	Low	0.0013 (1.028)	1.1169 (32.592)***	0.1014 (1.694)*	-0.1673 (-2.833)***	-0.0089 (-0.395)	0.972
Social	High	-0.0026 (-1.720)*	1.0599 (24.590)***	0.1987 (2.967)***	-0.1540 (-2.282)**	-0.0486 (-2.404)**	0.973
	Low	0.0015 (1.043)	1.1199 (29.185)***	0.1357 (2.522)**	-0.1539 (-2.357)**	-0.0356 (-1.700)*	0.973
Governance	High	-0.0012 (-1.318)	0.9576 (44.094)***	0.1408 (3.334)***	-0.0265 (-0.853)	0.0024 (0.181)	0.982
	Low	0.0008 (0.552)	1.1350 (28.215)***	0.1048 (2.188)**	-0.2137 (-3.167)***	-0.0049 (-0.344)	0.974

Note: This table reports the risk-adjusted performance of companies in individual dimensions of environmental, social and governance. Portfolios are adjusted monthly based on the average disclosure score by adjusting company size and sector. ‘High’ and ‘Low’ presents high ESG disclosure and low ESG disclosure. Panel A shows results of portfolios inside of negative media exposure whereas Panel B presents results of portfolios outside of negative media exposure. The sample estimation period is from January 2007 to July 2012. The dependent variable is the monthly portfolio stock return for each setting minus the risk-free rate for that month. The alpha represents the monthly abnormal stock return for the portfolios. ‘Market’ is the market risk exposure which using value-weighted market return minus risk-free rate. The market benchmark is constructed from the value-weighted portfolio of all the equities in the sample and adjusted by ESG disclosure. The rest presents the estimated coefficients of the SMB (small cap), HML (value), and MOM (momentum) investment style benchmark factors. Negative coefficients imply exposure to the respective opposite investment styles, which are large cap, growth, and contrarian, respectively. The last column shows the adjusted R-squared statistics. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

6.5.5 Is there a difference during and after the financial crisis?

There are a number of definitions of the start and end of the 2008 financial crisis, but it is generally taken to be between 2007 and 2009. Following Frankel and Saravelos (2012), I define the end of the financial crisis as March 2009, which is at the bottom in the MSCI world Index. Since the sample period of this study is from January 2007 to July 2012, I define the period during the financial crisis as from January 2007 to March 2009 and the period after the financial crisis is from April 2009 to July 2012.

Table 6.9 provides the risk-adjusted performance based on the Carhart model by comparing the difference between during and after the financial crisis period. Panel A shows the results during the financial crisis period, while Panel B presents the results after the financial crisis period. Please note that all portfolios exclude the financial sector from the sample. In Panel A, the high ESG disclosure portfolio after the financial crisis period presents significantly positive abnormal returns of 0.16% (1.92% annually) at a 10% significance level. In Panel B, the low ESG disclosure portfolio after the financial crisis period presents significantly positive abnormal returns of 0.18% (2.16% annually) at a significance level of 1%. However, there are no significant alpha levels during the financial crisis period. The results suggest that after the financial crisis period, the high disclosure level portfolios are more likely to eliminate the adverse effects of the negative media coverage. The underlying understanding is that, during the financial crisis period, companies may have devoted fewer resources to ESG disclosure. On the other hand, investors may have failed to notice the difference between high and low ESG disclosure companies when the stock market is in turmoil.

Table 6.9 Financial crisis

Portfolios	Disclosure	Alpha	Market	SMB	HML	MOM	Adj. R ²					
<i>Panel A: Inside of negative media exposure</i>												
During financial crisis	High	0.0007	(0.260)	0.9393	(27.299)***	-0.1484	(-1.394)	0.0024	(0.040)	0.1209	(3.009)***	0.958
	Low	-0.0038	(-0.971)	1.2501	(21.805)***	0.2744	(1.570)	-0.5905	(-5.429)***	0.1319	(2.404)**	0.948
After financial crisis	High	0.0016	(1.995)*	0.9155	(48.798)***	-0.1865	(-4.973)***	-0.0615	(-2.115)**	0.0898	(10.750)***	0.986
	Low	-0.0013	(-0.625)	1.0831	(29.072)***	0.1209	(1.717)*	-0.1615	(-2.175)**	-0.0070	(-0.337)	0.955
<i>Panel B: Outside of negative media exposure</i>												
During financial crisis	High	-0.0018	(-0.513)	1.1434	(15.854)***	0.3649	(3.131)***	-0.4930	(-3.579)***	0.0317	(0.490)	0.964
	Low	0.0002	(0.170)	0.9936	(39.317)***	0.0823	(1.390)	-0.1403	(-2.782)**	0.0822	(4.570)***	0.989
After financial crisis	High	-0.0002	(-0.196)	1.0629	(62.724)***	0.2834	(7.291)***	-0.1572	(-5.852)***	-0.0155	(-1.068)	0.985
	Low	0.0018	(3.028)***	0.9464	(50.546)***	0.0104	(0.400)	-0.0721	(-2.557)**	0.0508	(8.525)***	0.992

Note: This table provides risk-adjusted performance based on the Carhart model by comparing the difference between during and after the financial crisis period. Portfolios are adjusted monthly based on the average disclosure score by adjusting company size and sector. ‘High’ and ‘Low’ presents high ESG disclosure and low ESG disclosure. Panel A shows results of portfolios inside of negative media exposure whereas Panel B presents results of portfolios outside of negative media exposure. The estimating period for Panel A is from January 2007 to March 2009 while the estimating period for Panel B is from April 2009 to July 2012. The dependent variable is the monthly portfolio stock return for each setting minus the risk-free rate for that month. The alpha represents the monthly abnormal stock return for the portfolios. ‘Market’ is the market risk exposure which using value-weighted market return minus risk-free rate. The market benchmark is constructed from the value-weighted portfolio of all the equities in the sample and adjusted by ESG disclosure. The rest presents the estimated coefficients of the SMB (small cap), HML (value), and MOM (momentum) investment style benchmark factors. Negative coefficients imply exposure to the respective opposite investment styles, which are large cap, growth, and contrarian, respectively. The last column shows the adjusted R-squared statistics. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

6.6 Robustness tests and additional analysis

In this section, I provide the robustness tests based on the main results reported in Table 6.5. I use the same method, but change one research setting in each robustness test. Firstly, I test the news coverage in the shorter time horizon. The relevant severity level of news is lagged for 1, 3, 6, and 12 months, respectively. Secondly, I apply the equal-weighted method. Thirdly, I test the alternative market benchmark by using the Fama-French market benchmark downloaded from Fama-French database. Due to the main purpose of this chapter, I only present the results from comparing companies during and outside the period of negative media coverage.

6.6.1 Different holding periods

Based on the notion that effective stakeholder engagement requires a longer-term time horizon (Eccles, Ioannou and Serafeim, 2014), the protection offered by high ESG disclosure should be delivered in the longer term. I also test the different time horizons of news coverage based on the severity levels of 1, 2, 3, and higher than 3, and hold stocks for 1, 3, 6, and 12 months accordingly. This study applies shorter time periods of news coverage to the portfolio analysis and expect similar results to be generated. Although the main purpose of this study is focused on the shareholder value in the long term, Appendix 6B shows the results in the short term of holding stocks for only 10 days.

Table 6.10 reports the test based on the main analysis by firstly examining firms of all sizes and then examining large size firms separately. I find that none of the portfolios' abnormal returns are significant except for large firms with low ESG disclosure level, which yields a significantly negative abnormal return of -0.39% (-4.68% annually). As the results are similar to the main analysis, the difference between different lengths of time horizons in the longer term should be ignored.

Table 6.10 Robustness test – Different holding periods

Portfolios	Disclosure	Alpha		Market		SMB		HML		MOM		Adj. R ²
<i>Panel A: Inside of negative media exposure</i>												
All firm sizes	High	0.0009	(0.690)	0.9278	(29.397)***	-0.2792	(-5.027)***	0.1754	(2.471)**	0.0455	(2.522)**	0.968
	Low	-0.0028	(-1.333)	1.0995	(20.999)***	-0.0247	(-0.225)	-0.1975	(-1.542)	-0.0014	(-0.050)	0.923
Large size only	High	0.0009	(0.670)	0.9245	(28.864)***	-0.2927	(-5.302)***	0.1763	(2.425)**	0.0506	(2.845)***	0.967
	Low	-0.0039	(-2.150)**	1.0892	(21.559)***	-0.0408	(-0.378)	-0.2538	(-2.682)***	0.0107	(0.370)	0.917
<i>Panel B: Outside of negative media exposure</i>												
All firm sizes	High	-0.0011	(-1.228)	1.0590	(48.657)***	0.2039	(6.184)***	-0.1379	(-2.802)***	-0.0298	(-2.768)***	0.991
	Low	0.0003	(1.070)	0.9838	(177.835)***	0.0143	(1.290)	0.0314	(2.165)**	-0.0032	(-0.878)	0.999
Large size only	High	-0.0016	(-1.435)	1.0208	(37.939)***	0.1545	(2.993)***	-0.0876	(-1.784)*	-0.0174	(-1.233)	0.980
	Low	0.0016	(1.580)	1.0740	(35.360)***	0.0578	(1.120)	-0.1242	(-3.053)***	-0.0403	(-2.436)**	0.979

Note: This table provides robustness test based on the main analysis. Everything holds equal, I change the media exposure period which is lagged for 1, 3, 6 and 12 months based on defined severity level of the news. Portfolios are adjusted monthly based on the average disclosure score by adjusting company size and sector. ‘High’ and ‘Low’ presents high ESG disclosure and low ESG disclosure. Panel A shows results of portfolios inside of negative media exposure whereas Panel B presents results of portfolios outside of negative media exposure. All portfolios are value-weighted. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

6.6.2 Alternative weighting scheme

The sample included large, medium, and small sized companies, therefore I also construct portfolios using the equal-weighted method. As can be seen in Table 6.11, the results in Panel A show that firms in the low ESG disclosure group generate significantly lower abnormal returns than the high ESG disclosure group; however, this does not necessarily imply that the high ESG disclosure group can be protected by the market since both high and low ESG disclosure portfolios show negative abnormal returns.

Compared to the previous sections using the value-weighted portfolio method where only firms in the low ESG disclosure group suffer from negative media impact, most of the portfolios in both Panel A and Panel B significantly underperform to the market benchmark. The results suggest that small companies are more likely to be negatively impacted by negative media coverage. However, this may not be the case since the equal-weighted portfolios are regressed on a value-weighted benchmark. The results prove that the value-weighted approach is more appropriate for this study due to the sample size being a mixture of big and small sized companies.

Table 6.11 Robustness test – Equally weighted portfolios

Portfolios	Alpha		Market		SMB		HML		MOM		Adj. R ²
<i>Panel A: Inside of negative media exposure</i>											
High	-0.0046	(-3.358)***	1.0893	(34.664)***	0.2128	(4.549)***	0.0625	(1.300)	-0.0749	(-4.864)***	0.982
Low	-0.0065	(-2.214)**	1.2737	(16.219)***	0.3014	(3.754)***	-0.1009	(-0.851)	-0.1199	(-4.112)***	0.958
Long-short	0.0009	(0.360)	-0.1848	(-3.298)***	-0.0811	(-1.067)	0.1603	(1.580)	0.0415	(1.420)	0.373
<i>Panel B: Outside of negative media exposure</i>											
High	-0.0065	(-3.182)***	1.1807	(23.216)***	0.5599	(8.882)***	0.0329	(0.440)	-0.1774	(-7.432)***	0.979
Low	-0.0041	(-1.964)*	1.1997	(21.041)***	0.6776	(10.039)***	0.0301	(0.430)	-0.1327	(-7.294)***	0.981
Long-short	-0.0034	(-4.302)***	-0.0194	(-0.912)	-0.1103	(-2.583)**	-0.0003	(-0.008)	-0.0482	(-2.939)***	0.187

Note: This table provides robustness test based on the main analysis. Everything holds equal, I apply the equal-weighted method to all portfolios. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

6.6.3 Market benchmark analysis

As explained in the model specification, market returns play a significant role in the asset pricing model. Based on the reported main results, I regress the self-constructed market benchmark on the Fama-French market benchmark downloaded from the Fama-French database. The self-constructed market benchmark is constructed by a value-weighted portfolio of all the equities in the sample.

Table 6.12 shows that after controlling for risk factors, the value weighted self-constructed market portfolio significantly outperformed the Fama-French market benchmark by 0.55% (6.6% annually), which is unlikely, given that all the companies included in the portfolio experienced negative media attention. If the portfolios' excess returns presented in the previous sections are regressed on the Fama-French market benchmark, they would generate highly significantly positive abnormal returns across all the portfolios, and thus the results are biased due to the unsuitable market benchmark used in the regression.

In summary, I find significantly different results by using a self-constructed market benchmark compared to other market benchmarks. I find that abnormal returns generated by using alternative market benchmarks including MSCI USA index and S&P 500 index are similar to the Fama-French benchmark.

Table 6.12 Robustness test – Market benchmark analysis

Portfolios	Alpha	Market	SMB	HML	MOM	Adj. R ²
Self-constructed benchmark	0.0055 (7.166)***	0.9647 (64.903)***	-0.0882 (-3.814)***	0.0302 (1.162)	-0.015 (-0.871)	0.993

Note: The self-constructed market benchmark is constructed by the value-weighted portfolio of all the equities in the sample and adjusted by ESG disclosure. This table provides risk-adjusted performance based on the Carhart model by regressing self-constructed market benchmark on market benchmark made available on Fama-French database. The alpha represents the monthly abnormal stock return for the portfolios. The rest presents the estimated coefficients of the SMB (small cap), HML (value), and MOM (momentum) investment style benchmark factors. Negative coefficients imply exposure to the respective opposite investment styles, which are large cap, growth, and contrarian, respectively. The last column shows the adjusted R-squared statistics. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

6.7 Conclusions and discussions

In this study, I have investigated the moderating effect of transparency on the relationship between CSiR negative media coverage and firm financial performance. The main findings are firms exposed to negative media are characterised by high and low levels of ESG disclosure ratings which have no significant positive or negative impact on abnormal returns. However, subsequent analysis finds heterogeneity in the different types of dimensions, company sizes, sectors, and different time periods. Generally speaking, small firms perform better than large firms, and companies without negative media coverage perform better than companies with negative media coverage. The results support the view that companies in the consumer sector with higher transparency can be protected to some extent if they experience negative media coverage. Companies of larger size and lower transparency are more likely to be penalised by negative media coverage. In addition, under conditions of negative media exposure, the firms in the low governance disclosure group significantly underperform the market benchmark and the moderating effect is more pronounced in the period after the financial crisis. In the robustness analysis, the findings still hold after testing for different holding periods, different market benchmarks, and alternative weighting methods.

Distinct from ESG disclosure, ESG performance is able to measure firms' ESG practices, and I expect that there is a difference between ESG performance and ESG disclosure ratings, which may act as a buffer for firms reported in CSiR news. Studies suggest that disclosure information has limited usefulness for representing performance due to the diverse extent and content of the measurement (Clarkson et al., 2008). Therefore, the ESG disclosure may or may not indicate ESG performance, which could be the reason for the weak protection in this study.

To calculate the ESG disclosure score, I divide the firms according to different industries and sizes, since companies in different industries and sizes may influence different areas. For example, the banking sector has much less direct influence on environmental issues, so when I calculate the total ESG performance index, I give less weight to its environmental performance. Chen and Bouvain (2008) point out that some companies have a long history of reporting a substantial amount of non-financial

information, while other companies may provide limited information or no information at all. Apart from the industry and size effect, there are other factors that can drive the differences between the different degrees of ESG disclosure.

Previous research has confirmed that companies do both *good* things and *bad* things, so future studies could address the questions of whether companies do *good* in order to protect them from the (financial) harm of the *bad* things they also do. In other words, is there any greenwashing by companies who have committed irresponsible behaviour? In this chapter, I have assumed that companies were transparent in the first place, but it would be interesting to investigate any changes in companies' behaviour relating to CSR-related activities before and after their irresponsible behaviour in future studies.

Appendix 6A. Sector and size analysis

Table 6.13 Sector analysis

Portfolios		Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel A: Inside of negative media exposure</i>							
10 Energy	High	-0.0036 (-0.889)	1.1980 (16.200)***	-0.4818 (-2.703)***	-0.2586 (-2.282)**	0.2931 (3.107)***	0.710
	Low	-0.0098 (-0.984)	1.4868 (6.355)***	0.3998 (1.020)	-0.4065 (-1.288)	0.1135 (0.580)	0.585
15 Materials	High	-0.0048 (-1.001)	1.4195 (11.509)***	0.1963 (0.840)	-0.3284 (-1.794)*	-0.0779 (-1.112)	0.832
	Low	-0.0057 (-0.506)	1.8600 (7.797)***	0.2779 (0.710)	-0.5502 (-1.069)	0.0586 (0.250)	0.634
20 Industrials	High	-0.0060 (-1.895)*	1.1812 (17.034)***	0.0147 (0.100)	0.4457 (2.857)***	-0.0390 (-0.831)	0.875
	Low	-0.0048 (-1.078)	1.2732 (11.419)***	0.3041 (1.962)*	-0.2864 (-1.275)	-0.1565 (-2.452)**	0.847
25 Consumer Discre.	High	0.0036 (1.705)*	0.6829 (14.871)***	0.0450 (0.370)	0.2842 (2.038)**	0.0188 (0.440)	0.818
	Low	-0.0031 (-0.622)	1.0119 (7.953)***	0.6767 (2.582)**	-0.3124 (-2.183)**	-0.3255 (-4.319)***	0.790
30 Consumer Staples	High	0.0058 (2.800)***	0.7470 (14.475)***	-0.3459 (-2.720)***	0.0208 (0.190)	0.1137 (3.390)***	0.771
	Low	0.0030 (0.930)	0.7822 (9.396)***	-0.0254 (-0.140)	-0.1098 (-0.862)	0.0513 (0.740)	0.667
35 Health Care	High	0.0006 (0.170)	0.6676 (7.065)***	-0.3196 (-1.296)	0.0727 (0.450)	0.0645 (0.540)	0.500
	Low	-0.0002 (-0.045)	0.6435 (4.289)***	0.2121 (0.710)	0.0226 (0.110)	0.0023 (0.020)	0.403
40 Financials	High	-0.0062 (-1.118)	1.1020 (6.271)***	-0.2975 (-1.497)	1.1915 (3.106)***	-0.3057 (-3.577)***	0.817
	Low	-0.0017 (-0.469)	0.8708 (11.244)***	-0.3188 (-1.841)*	0.4491 (2.537)**	-0.2957 (-3.714)***	0.823
45 IT	High	-0.0009 (-0.204)	1.1955 (11.491)***	0.1826 (0.910)	-0.5220 (-3.015)***	0.0286 (0.410)	0.782
	Low	-0.0035 (-0.703)	1.4177 (7.866)***	0.1442 (0.460)	-0.9533 (-3.823)***	0.0727 (0.930)	0.652
55 Utilities	High	-0.0020 (-0.504)	0.6338 (6.276)***	-0.2930 (-1.411)	-0.1204 (-0.649)	0.1945 (4.415)***	0.490
	Low	-0.0035 (-0.600)	0.9188 (5.928)***	-0.4979 (-1.695)*	-0.2229 (-0.766)	0.1471 (2.011)**	0.503

Table 6.13 Sector analysis continued

Portfolios		Alpha		Market		SMB		HML		MOM		Adj. R ²
<i>Panel B: Outside of negative media exposure</i>												
10 Energy	High	-0.0040	(-0.608)	1.5215	(8.391)***	-0.2229	(-0.553)	-0.4568	(-1.553)	0.2286	(1.200)	0.584
	Low	-0.0056	(-0.718)	1.5283	(9.634)***	0.0686	(0.170)	-0.6520	(-2.205)**	0.0715	(0.290)	0.567
15 Materials	High	-0.0045	(-0.702)	1.4638	(8.988)***	0.4522	(2.103)**	-0.3912	(-1.233)	0.0090	(0.070)	0.806
	Low	-0.0053	(-1.011)	1.5237	(11.307)***	0.6641	(3.363)***	-0.1513	(-0.682)	0.1078	(1.260)	0.864
20 Industrials	High	-0.0016	(-0.474)	1.2620	(14.774)***	0.2656	(1.739)*	-0.1633	(-1.193)	-0.0556	(-1.506)	0.901
	Low	-0.0035	(-1.155)	1.2680	(14.690)***	0.5290	(4.928)***	-0.4145	(-2.583)**	-0.0481	(-1.209)	0.913
25 Consumer Discre.	High	-0.0031	(-0.860)	1.0598	(12.169)***	0.4972	(2.296)**	0.0348	(0.260)	-0.2690	(-3.887)***	0.879
	Low	0.0039	(1.340)	1.0303	(14.598)***	0.4494	(3.402)***	-0.0068	(-0.043)	-0.1028	(-1.710)*	0.894
30 Consumer Staples	High	0.0027	(0.950)	0.6746	(8.034)***	0.0534	(0.320)	-0.0235	(-0.202)	0.0013	(0.020)	0.690
	Low	0.0062	(2.570)**	0.8775	(16.659)***	0.1265	(0.900)	0.0086	(0.070)	-0.0699	(-1.509)	0.829
35 Health Care	High	-0.0044	(-1.092)	0.7710	(8.078)***	0.2596	(1.010)	-0.1520	(-0.889)	0.0018	(0.010)	0.581
	Low	-0.0011	(-0.277)	0.8609	(14.713)***	0.2897	(1.430)	-0.3777	(-2.517)**	-0.1321	(-1.155)	0.700
40 Financials	High	-0.0042	(-1.682)*	1.1014	(25.568)***	-0.0310	(-0.335)	0.7047	(4.477)***	-0.2473	(-4.903)***	0.928
	Low	-0.0028	(-0.915)	1.0809	(12.969)***	-0.0394	(-0.488)	0.6963	(3.696)***	-0.1673	(-3.583)***	0.931
45 IT	High	-0.0046	(-1.473)	1.2634	(14.397)***	0.3427	(1.677)*	-0.7606	(-4.612)***	-0.0209	(-0.334)	0.809
	Low	-0.0059	(-1.164)	1.3071	(10.938)***	0.5823	(2.458)**	-0.7239	(-2.707)***	-0.0738	(-0.786)	0.757
55 Utilities	High	-0.0005	(-0.113)	0.7592	(6.347)***	-0.3078	(-1.364)	-0.2868	(-1.188)	0.1052	(1.807)*	0.516
	Low	-0.0004	(-0.110)	0.6871	(6.587)***	-0.1971	(-0.801)	-0.1227	(-0.648)	0.1698	(3.455)***	0.499

Table 6.13 Sector analysis continued (2)

Portfolios		Alpha	Market	SMB	HML	MOM	Adj. R ²
<i>Panel C: Without negative media exposure</i>							
10 Energy	High	-0.0042 (-0.397)	1.9523 (7.263)***	0.1677 (0.340)	-1.0318 (-2.381)**	0.1541 (0.830)	0.622
	Low	-0.0002 (-0.026)	1.7098 (6.868)***	0.5495 (1.350)	-0.3993 (-1.524)	0.0511 (0.210)	0.629
15 Materials	High	0.0034 (0.700)	1.1132 (8.765)***	0.7884 (2.583)**	-0.1235 (-0.613)	-0.1165 (-0.712)	0.764
	Low	-0.0022 (-0.348)	1.4354 (8.765)***	0.6920 (2.763)***	-0.5384 (-1.997)*	0.0173 (0.130)	0.752
20 Industrials	High	0.0000 (-0.002)	1.0565 (17.901)***	0.4947 (4.324)***	-0.1820 (-3.082)***	0.0149 (0.530)	0.911
	Low	0.0000 (-0.002)	1.1091 (20.085)***	0.6333 (7.108)***	-0.1277 (-1.330)	0.0392 (1.120)	0.914
25 Consumer Discre.	High	0.0036 (1.130)	0.9431 (12.422)***	0.7875 (4.265)***	-0.2905 (-1.412)	-0.1169 (-1.934)*	0.854
	Low	0.0025 (0.810)	0.9420 (14.226)***	0.8435 (7.126)***	-0.2390 (-1.787)*	-0.0927 (-1.695)*	0.888
30 Consumer Staples	High	-0.0005 (-0.108)	0.7320 (7.573)***	0.0767 (0.400)	-0.0687 (-0.300)	-0.0982 (-1.282)	0.563
	Low	0.0057 (1.300)	0.9116 (12.134)***	0.3385 (2.161)**	-0.2265 (-1.360)	-0.1105 (-2.936)***	0.763
35 Health Care	High	0.0082 (1.881)*	0.9208 (7.416)***	0.5483 (3.251)***	-0.2751 (-1.390)	-0.0825 (-1.080)	0.757
	Low	0.0098 (3.055)***	0.9536 (9.256)***	0.6590 (4.992)***	-0.0888 (-0.655)	0.0472 (0.670)	0.834
40 Financials	High	-0.0114 (-2.409)***	1.0763 (10.880)***	0.0253 (0.110)	1.0171 (4.579)***	-0.2065 (-1.425)	0.836
	Low	-0.0003 (-0.081)	0.8553 (13.119)***	0.4121 (3.474)***	0.6371 (4.940)***	-0.0907 (-1.865)*	0.881
45 IT	High	-0.0087 (-2.178)**	1.3319 (14.342)***	0.8569 (4.227)***	-0.6104 (-2.602)**	-0.0482 (-0.537)	0.835
	Low	-0.0005 (-0.147)	1.2532 (13.230)***	0.7274 (4.133)***	-0.7641 (-3.931)***	-0.0770 (-1.669)	0.873
55 Utilities	High	0.0019 (0.500)	0.9002 (8.177)***	-0.0113 (-0.065)	-0.2347 (-0.919)	0.0864 (1.120)	0.571
	Low	0.0017 (0.380)	0.5854 (6.619)***	0.2033 (1.020)	0.1427 (1.080)	0.2409 (5.864)***	0.490

Note: This table reports the abnormal returns of portfolios using the Carhart model. Portfolios in each sector and adjust the average disclosure score by sector. Panel B shows portfolios in large, medium and small sizes and adjusts the average disclosure score by company size. The sample estimation period is from January 2007 to July 2012. The dependent variable is the monthly portfolio stock return for each setting minus the risk-free rate for that month. The alpha represents the monthly abnormal stock return for the portfolios. ‘Market’ is the market risk exposure which using value-weighted market return minus risk-free rate. The market benchmark is constructed from the value-weighted portfolio of all the equities in the sample and adjusted by ESG disclosure. The rest presents the estimated coefficients of the SMB (small cap), HML (value), and MOM (momentum) investment style benchmark factors. Negative coefficients imply exposure to the respective opposite investment styles, which are large cap, growth, and contrarian, respectively. The last column shows the adjusted R-squared statistics. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

Table 6.14 Size analysis

Portfolios		Alpha		Market		SMB		HML		MOM		Adj. R ²
<i>Panel A: Inside of negative media exposure</i>												
Large	High	0.0011	(0.850)	0.9359	(34.077)***	-0.2260	(-5.092)***	0.1058	(2.128)**	0.0440	(3.281)***	0.976
	Low	-0.0028	(-2.095)**	1.0112	(31.291)***	0.0009	(0.010)	-0.1237	(-2.560)**	-0.0204	(-1.180)	0.962
Mid	High	0.0010	(0.430)	1.0621	(16.735)***	0.4504	(2.889)***	-0.0251	(-0.244)	-0.0592	(-1.112)	0.900
	Low	0.0009	(0.210)	1.3353	(11.433)***	0.3226	(2.055)**	-0.0605	(-0.284)	-0.1729	(-2.295)**	0.880
Small	High	-0.0028	(-0.444)	1.1441	(8.939)***	0.8106	(2.506)**	0.7134	(3.390)***	-0.2244	(-2.000)**	0.771
	Low	-0.0006	(-0.104)	1.1656	(8.765)***	0.6510	(3.603)***	0.0747	(0.540)	-0.0847	(-1.125)	0.809
<i>Panel B: Outside of negative media exposure</i>												
Large	High	-0.0004	(-0.239)	0.9745	(22.902)***	0.1609	(3.260)***	-0.1182	(-1.703)*	0.0072	(0.350)	0.957
	Low	0.0018	(1.240)	1.0186	(22.626)***	0.0411	(0.530)	0.2048	(3.149)***	-0.0864	(-4.837)***	0.977
Mid	High	-0.0005	(-0.199)	1.1381	(13.848)***	0.3732	(4.570)***	-0.1431	(-0.931)	-0.0535	(-2.038)**	0.941
	Low	-0.0053	(-1.785)*	1.2180	(14.921)***	0.4382	(3.494)***	-0.1785	(-1.090)	-0.0797	(-2.133)**	0.952
Small	High	-0.0006	(-0.174)	1.0054	(13.120)***	0.7630	(3.469)***	-0.2095	(-1.483)	-0.1508	(-2.553)**	0.850
	Low	0.0000	(0.000)	1.2083	(17.622)***	1.0332	(10.865)***	0.0554	(0.390)	-0.1373	(-1.842)*	0.955
<i>Panel C: Without negative media exposure</i>												
Large	High	-0.0082	(-2.301)**	1.1046	(19.152)***	0.2865	(1.996)*	0.2031	(0.970)	-0.1666	(-1.900)*	0.887
	Low	0.0003	(0.170)	1.0331	(17.889)***	0.4084	(5.021)***	-0.1969	(-2.824)***	-0.0057	(-0.234)	0.952
Mid	High	0.0021	(1.140)	0.9324	(21.433)***	0.7145	(7.990)***	0.1398	(2.276)**	-0.0880	(-3.016)***	0.938
	Low	0.0038	(3.248)***	1.0430	(33.477)***	0.7691	(12.153)***	0.0135	(0.350)	-0.1024	(-5.380)***	0.978
Small	High	0.0074	(2.393)**	0.9116	(14.287)***	0.8165	(5.368)***	0.2814	(2.188)**	-0.0867	(-1.676)*	0.877
	Low	0.0072	(3.374)***	1.1111	(19.449)***	0.8672	(10.921)***	0.2401	(2.085)**	-0.0725	(-1.942)*	0.950

Note: This table reports the abnormal returns of portfolios using the Carhart model. Portfolios are divided in large, medium and small sizes and are adjusted the average disclosure score by company size. The sample estimation period is from January 2007 to July 2012. The dependent variable is the monthly portfolio stock return for each setting minus the risk-free rate for that month. The alpha represents the monthly abnormal stock return for the portfolios. ‘Market’ is the market risk exposure which using value-weighted market return minus risk-free rate. The market benchmark is constructed from the value-weighted portfolio of all the equities in the sample and adjusted by ESG disclosure. The rest presents the estimated coefficients of the SMB (small cap), HML (value), and MOM (momentum) investment style benchmark factors. The last column shows the adjusted R-squared statistics. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

Appendix 6B. The protection of ESG disclosure in the short term

The main purpose of this study is to investigate whether firms' transparency levels in ESG information provided any protection if they exposed to negative ESG news in the long term. To understand how negative ESG news influences financial return in the short term, I evaluate the financial return 10 days after each news coverage to serve as the short-term effects. For the long-term effect, I evaluate a specific period of financial returns after each news story by considering its severity levels. Since the severity levels are divided by 1, 2, 3, and larger than 3, I hold the stocks for 6, 12, 18, and 24 months accordingly. I do not consider the magnitude of the severity level in the short term due to the short term time horizon being rather difficult to separate out, and the difference between variable effect periods and fixed periods are expected to be similar.

It is common to apply a calendar-time portfolio approach for long-run event studies; however, short-run event studies are conducted in a more conventional setting, such as the detailed methodology used in Mackinlay (1997). I find the advantage of applying a calendar-time portfolio approach in the short run is that there are no contaminations of the time period. Since the conventional event study reports on the coefficients generated based on a time period before the event, it could be the case that the specified market period has multiple similar events and is therefore not suitable as a benchmark. The event-time portfolio approach only evaluates stock performance for a specific period of time after events, and news coverage periods are treated in a portfolio setting and then compared with a broad market benchmark, which can avoid the contamination of the market model used in conventional event studies. Instead of treating each stock equally, the other advantage of the calendar-time portfolio approach is that I can deal with stocks with different weighting methods. Also, in this study, I am able to evaluate the various time periods of news coverage in the portfolio construction.

Table 6.15 summarises the results of both the CAPM and Carhart model for both equal-weighted and value-weighted portfolios based on ESG disclosure scores and negative news in the short term. I find all the portfolios, no matter on which weighting scheme or asset pricing model, have insignificant results, which suggest that the

market is not concerned about the impact of ESG news in the short term. Although I cannot find any significant abnormal returns in the short-term effect models, it is interesting to point out that the differences between high and low ESG disclosure daily abnormal returns are 0.03% and 0.04%, respectively.

In order to show the yearly differences, I also run daily portfolio regressions separately in each year from the sample period Jan 3, 2006 to July 31, 2012. I can only compare the yearly differences in the short-run portfolios since the long-run portfolios do not have sufficient observations. Table 6.16 displays the portfolio results regressed on a yearly basis. I only find high ESG disclosure portfolio in the year 2008 generates positive daily abnormal returns of 0.06% at a significance level of 10%. I find that the high ESG disclosure portfolios perform better than the low ESG disclosure portfolios in 2006, 2007, 2008, and 2011, whereas in 2009, there are no differences and in 2010 and 2012, the low ESG disclosure portfolios actually perform better than the high ESG disclosure portfolios. The results suggest that the value of ESG is more recognised in the time period before the financial crisis.

Table 6.15 The protection of ESG disclosure in short term

	Equal Weighted		Value Weighted	
	High ESG Disclosure	Low ESG Disclosure	High ESG Disclosure	Low ESG Disclosure
Alpha	-0.0002 (-1.305)	-0.0001 (-0.283)	0.0001 (0.732)	-0.0003 (-1.300)
Market	1.1025 (69.490)***	1.1072 (32.580)***	1.0043 (68.996)***	0.9881 (39.007)***
SMB	-0.0268 (-0.891)	0.0417 (0.710)	-0.2593 (-7.941)***	-0.1609 (-3.990)***
HML	0.0721 (1.745)*	-0.0956 (-1.421)	0.1065 (3.030)***	-0.2205 (-3.731)***
MOM	-0.0130 (-0.465)	-0.1268 (-3.398)***	0.1188 (6.101)***	0.0314 (1.040)
Adj. R ²	0.918	0.787	0.911	0.757

Note: This table provides risk-adjusted performance based on the Carhart model. The holding period is 10 days after news announcement. The first column displays the Parameters. The second and the third column show results of portfolios in equal-weighted method whereas column three and four present results of portfolios in the value-weighted method. The estimating period is from January 3, 2006 to July 31, 2012. The dependent variable is the daily portfolio stock return for each setting minus the risk-free rate for that day. The alpha represents the daily abnormal stock return for the portfolios. ‘Market’ is the market risk exposure which using value-weighted market return minus risk-free rate. The rest presents the estimated coefficients of the SMB (small cap), HML (value), and MOM (momentum) investment style benchmark factors. Negative coefficients imply exposure to the respective opposite investment styles, which are large cap, growth, and contrarian, respectively. The last column shows the adjusted R-squared statistics. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based Newey and West (1987) method.

Table 6.16 ESG Disclosure protection comparison on a yearly basis

Year	ESG Disclosure	Alpha		Market		SMB		HML		MOM		Adj. R ²
2006	High	-0.0005	(-1.201)	0.9816	(10.902)***	-0.1628	(-1.360)	0.5107	(2.927)***	0.3033	(3.173)***	0.530
	Low	-0.0010	(-1.226)	0.8321	(5.887)***	0.0719	(0.370)	0.0918	(0.250)	-0.1448	(-1.037)	0.195
2007	High	0.0001	(0.440)	1.1123	(35.326)***	-0.3126	(-4.016)***	0.1646	(1.520)	0.0240	(0.370)	0.856
	Low	-0.0010	(-1.467)	0.9178	(12.742)***	-0.0977	(-0.700)	-0.4587	(-2.159)**	0.0288	(0.280)	0.521
2008	High	0.0006	(1.736)*	1.0501	(40.545)***	-0.2067	(-3.014)***	0.1517	(1.857)*	0.2339	(4.405)***	0.949
	Low	0.0000	(-0.036)	1.0130	(26.219)***	-0.1571	(-1.779)*	-0.3913	(-3.729)***	0.0182	(0.242)	0.836
2009	High	0.0000	(-0.096)	0.8952	(28.635)***	-0.2609	(-5.141)***	0.1902	(3.904)***	0.0787	(2.943)***	0.919
	Low	0.0000	(0.070)	1.0913	(17.398)***	-0.1393	(-1.566)	-0.1169	(-1.341)	0.1267	(2.040)**	0.763
2010	High	0.0002	(1.100)	1.0298	(56.688)***	-0.3191	(-10.820)***	0.1028	(2.125)**	-0.1289	(-3.100)***	0.955
	Low	0.0003	(1.060)	1.0142	(21.395)***	-0.0889	(-1.525)	-0.1575	(-1.642)	-0.1189	(-1.450)	0.829
2011	High	0.0001	(0.390)	1.0130	(57.427)***	-0.2120	(-4.905)***	0.2200	(5.861)***	-0.0142	(-0.668)	0.974
	Low	-0.0003	(-1.068)	0.9862	(37.954)***	-0.2683	(-6.060)***	-0.1450	(-1.834)*	0.0673	(1.683)*	0.914
2012	High	0.0003	(1.630)	1.0139	(26.749)***	-0.2688	(-6.572)***	0.0943	(1.606)	0.0306	(0.960)	0.935
	Low	0.0004	(1.400)	0.9206	(26.901)***	-0.1049	(-1.629)	-0.0365	(-0.479)	0.0045	(0.090)	0.877

Note: This table provides risk-adjusted performance based on the Carhart model. The news effect is lagged 10 days after the news. All portfolios are value-weighted. The estimating period is from Jan 3, 2006 to July 31, 2012. The dependent variable is the daily portfolio stock return for each setting minus the risk-free rate for that day. The alpha represents the daily abnormal stock return for the portfolios. ‘Market’ is the market risk exposure which using value-weighted market return minus risk-free rate. The rest presents the estimated coefficients of the SMB (small cap), HML (value), and MOM (momentum) investment style benchmark factors. Negative coefficients imply exposure to the respective opposite investment styles, which are large cap, growth, and contrarian, respectively. The last column shows the adjusted R-squared statistics. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on Newey and West (1987) method.

7 Conclusions

7.1 Summary of findings

Motivated by the increasing media exposure of irresponsible corporate behaviour, this thesis bundles together three empirical essays to make original contributions to the broad topic by investigating the concerned companies' shareholder values. In the aftermath of the ensuing media coverage of CSiR behaviour and a mounting interest from both investors and relevant industries, a number of research studies have been undertaken. However, the findings and possible solutions to the irresponsible corporate performances are still unclear. CSiR behaviour, which makes a significant impact on business operations, stakeholder relations, and society as a whole, is unique and complex, hence measuring it in terms of asset pricing research is challenging. The essays included in this thesis aim to bring clarity and solutions to this challenging area.

Chapter 2 focuses initially on the definitions of CSiR and the definition by Strike, Gao and Bansal (2006), where CSiR is the set of corporate actions that negatively affect stakeholder relationships in the long run, is employed as the definition for CSiR. The discussion of the attributes of CSiR behaviour shows that internal factors such as profit maximisation and external factors such as competition and environment are the causes of CSiR behaviour. In this chapter, I present a comparative review of the empirical analysis of CSR and CFP, CSiR and CFP and highlight the relevant research to the thesis. The purpose of discussion of empirical analysis on both CSR and CSiR is to inform the reader about the differences between the two and lay a literature foundation for the empirical studies that are presented in the following chapters.

Chapter 3 is the introductory chapter for the unique dataset provided by RepRisk who provides the most comprehensive coverage on CSiR for both listed and non-listed companies worldwide. I discuss the alternative datasets, the details and construction method of the RepRisk database and the advantages and limitations. I present descriptive statistics of the database and how it is used in the empirical chapters. Finally, I explain the reasons for using an appropriate measurement for this thesis. The calendar-time portfolio approach, which is originally developed by Jaffe (1974) and

Mandelker (1974), is employed to estimate the abnormal returns of the portfolios constructed in the empirical chapters.

Chapter 4 links CSiR activities to reputation risk and conducts a large-scale investigation of portfolios holding stocks from CSiR activities. It analyses risk-adjusted returns of high and low reputation risk portfolios based on a sample of 7,442 companies in 44 countries. Specifically, it addresses the difference between developed countries and developing countries, and the difference between financial and non-financial sectors. The chapter outlines the main consequences of corporate irresponsible behaviour on a global scale and lays foundation for the following empirical chapters.

The main findings of the analyses in Chapter 4 suggest that stocks with low reputation risk earn higher returns (annual four-factor alpha of 3.1%) than stocks with high reputation risk after controlling for well-known risk factors. By controlling for country, sector, firm characteristics, different weighting method, and the removal of financial sectors, the gaps between high and low reputation risk portfolios are consistent. The results also show that there are differences between developed and developing countries, financial and non-financial sectors. Compared to developed countries, this chapter finds wider significant differences in developing countries in terms of abnormal returns between companies exposed to high and low reputation risk. Also, the results suggest that there are more significant differences in abnormal performances between high and low reputation risk portfolios in non-financial sectors than in financial sectors.

Chapter 4 also contributes towards understanding the variations of CSiR across developed and developing country contexts, financial and non-financial contexts in the long term. The findings in this chapter imply that the stock market is concerned about the reputation risks linked to CSiR activities; however, it has failed to incorporate this information fully into stock prices. It suggests that investors are more likely to act on information pertaining to companies' levels of reputation risk in non-financial sectors and in developing countries. The findings provided some practical implications for investors that it is profitable to apply long-short strategy in buying low reputation risk companies and selling high reputation risk companies.

Since the multi-dimensions of CSiR behaviour have been particularly underexplored in the context of emerging markets, Chapter 5 investigates whether and how they affect shareholder values in China. It shows how the unique background of the Chinese stock market and the news dataset provide opportunities to reveal the differences between local and foreign investors, the different characteristics of news coverage and the role of the government. By addressing these research areas, the chapter also analyses CSiR issues in greater depth both theoretically and empirically.

The empirical results in Chapter 5 reveal that financial performance penalties are likely to vary according to the particular CSiR issues that are common to typical foreign investors or specific to local Chinese investors. Investors in Mainland China appear to interpret ESG-related issues differently owing to the socio-political nature of the country. Shares targeted at local shares receive significant negative returns while shares targeted at foreign investors may easily escape being penalised for negative ESG-related issues. The difference between shares targeted at local and foreign investors should motivate the government to encourage negative issues disclosure and to improve regulatory transparency. The findings also suggest that Chinese stock market can be indirectly affected by the legitimacy and government pressure.

Chapter 5 finds that portfolios based on the corporate governance and product related risks are subject to the highest performance penalties when compared to the appropriate benchmarks while controlling for other investment styles. Compared with social and environmental issues, investors care more about corporate governance issues. It is encouraging to find empirical support that the Chinese investors penalize companies with poor CSiR practices. Given that the majority of the Chinese literature only stays on the theoretical level, this chapter has evidently taken the agenda of CSiR in China to an empirical level and directly communicates to practitioners and investors alike. This chapter identifies those most serious CSiR issues in Chinese companies that can be indicators for investors, analysts, institutions, and governments. The results indicate that the CSiR activities of Chinese A-shares firms can become proxies which may have implications for future stock returns and companies are encouraged to integrate CSiR occurrences into their management and decision-making processes.

In a different research angle, Chapter 6 investigates whether high ESG disclosure rating – termed as high transparency – provides insurance-like protection for firms that

have been involved in CSiR activities. Although the literature has covered other protection factors, such as CSR, corporate reputation, and firm size, the transparency level of ESG disclosure has not been explored, which makes this chapter interesting and unique. Especially, it covers the topic in thorough considerations; this includes the effect of sectors, company size, financial crisis, different research designs. Since this study focuses on the moderating effects of ESG disclosure rating in the long term, companies are divided into high and low ESG disclosure groups of similar size and within the same sector.

The main findings of Chapter 6 are that firms with high ESG disclosure generally perform better than firms with low ESG disclosure; also that firms with low governance disclosure can be significantly punished by the stock market. On further exploration, I find that during the financial crisis period, firms that are in low environmental and social disclosure significantly underperform, and that after the financial crisis period, the underperformance disappears. The findings are robustly controlled against different market benchmarks, news coverage time horizons, firm sizes, extreme values, and sectors.

This chapter also provides an appropriate and comprehensive measurement of ESG performance and best portfolio choices and it has implications for academics and institutional investors for understanding the value of transparency in financial markets. If ESG disclosure can act as an insurance protection, then ESG disclosure and transparency should be important for firms to control risks to their reputations and reduce potential financial losses. On the other hand, the opposite could be true, that firms in a high reputation risk group, may attempt to acquire a positive corporate image. If so, large firms could use ESG activities to control for reputation risk. Once investors found out their true purpose, they could penalise those firms, and therefore, their ESG performance may also increase their risks.

Taken together, the results from the three empirical studies show that there are variations in the scope of CSiR issues that affect shareholder value in regards to different markets, sectors, investors, and research settings. That, compared to the developed market, developing markets have become more vulnerable to negative media coverage. The evidence suggests that the moderating effects of being transparent and predictable provide some benefits to companies that have done better,

whereas for those that have done poorly, penalties have been imposed. The findings suggest that CSiR research should be conducted in more complex settings by systematically integrating the relations in multi-dimensions and from various angles.

7.2 Research limitations

Despite the extensive research of the relationship of CSiR and shareholder value covered in the thesis, there are still several limitations that need to be taken into account. Firstly, due to the restrictions of the data, this thesis covers a relatively short sample period, which leads to the difficulty of examining the impact of dynamic characteristics of news coverage over longer estimation periods. Moreover, the recorded news dates in the database are unlikely to be the actual news coverage dates, hence it is not possible to conduct short-term event studies due to contamination of the event window. Also, the sample period covers 2007 to 2009, which coincided with the financial crisis, which provides extra difficulty to the econometric method, even if I could exclude financial sectors in the study. Therefore, a longer sample period is desirable for future CSiR studies, so that the effects of CSiR events can be measured in terms of their impact on shareholder values in longer time horizons.

Secondly, the thesis only focuses on the impact of CSiR behaviour on shareholder value in the asset pricing research field. No regression and correlation analysis studies have been conducted to measure the impact of a series of independent variables on dependent variable. For instance, this study has not performed regression studies in order to analyse the effects that particular company characteristics, market conditions, and investor behaviour have on financial returns. This study also has not examined the effects of CSiR on financial returns that included control variables, such as company size, market to book value, debt ratio, and research and development activities in the model specifications. Since regression and correlation analysis requires a large number of observations and both types of datasets, those I applied in the study are not suitable for this type of analysis.

Thirdly, since the academic research on CSiR behaviour is not as mature as CSR research, CSR theoretical foundations are adapted to provide inspirations for the CSiR literature framework. However, no implications have been suggested in this thesis to the differences between CSR theory and CSiR theory. Given the amount of literature

that suggests the financial impact of CSR and CSiR is different, it may be inappropriate to assume that CSR theories, such as stakeholder theory, are applicable to CSiR research. Due to the empirical and interdisciplinary nature of this thesis, the relevant theoretical foundations of CSiR have received limited attention.

7.3 Suggestions for future research

For future research, it is necessary to take into account cultural and country-specific factors in the regression analysis. I do not observe the differences between countries due to data and time restrictions. This raises the question of whether there are country and cultural differences within developed and developing countries. Future research should, perhaps, also apply this method to Western or other Asian countries with respect to specific stock market and cultural characteristics. It should be noted that the results of this study do not imply that firms' reputation risk profiles are constant across time. Indeed, over many years, a firm's reputation risk should be reasonably steady, but it could change in either direction. Therefore, future studies should explore the literature pertaining to the consistency of a firm's reputation risk profile in order to investigate the driving forces that change its attitude and behaviour over time.

To date, a considerable amount of literature has concentrated on what drives CSR (e.g., McWilliams and Siegel, 2001; Campbell, 2007; Ioannou and Serafeim, 2012). For example, Campbell (2007: 962) argues that 'the relative health of corporations and the economy and the level of competition to which corporations are exposed' affects CSR performance. Moreover, Ioannou and Serafeim (2012) find that in countries with low levels of corruption, firms are more likely to be socially and environmentally responsible. However, the current literature has not clearly explained what drives irresponsibility scandals; perhaps future research may fill this gap. Firm level, industry level and country level variables should be evaluated as they all may contribute to the causes of irresponsible behaviour. Firstly, at the firm level, the difference between listed and non-listed firms should be explored. Secondly, at the industry level, which industries are more likely to act in socially irresponsible ways should be identified. Thirdly, at the country level, how countries with different economic conditions, tax policies, political policies, safety conditions contribute to socially irresponsible scandals should be investigated.

Finally, it would be interesting to investigate how social responsibility characteristics affect firm risks and financial accounts. Donaldson (1999) argues that firm risks evaluate the fluctuations of financial performance over time. Orlitzky and Benjamin (2001: 370) believe that firm risk has typically been considered to be ‘an adjustment factor of return measures of financial performance.’ They support the notion that CSP and firm risk are reversely correlated, whereby the higher a firm's CSP, the lower its financial risk. Furthermore, they argue that the relation of CSP and market risk is stronger than CSP and accounting risk. Similarly, Oikonomou, Brooks and Pavelin (2012) find that CSR is negatively, but weakly, related to systematic firm risk, while CSiR is positively, but strongly, related to financial risk. However, all these studies only focused their analyses on CSR. Future research, therefore, should investigate the relationship between CSiR and firm risks.

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