社會科學論叢 2009年4月
第三卷第一期57-120頁

企業社會責任與財務積效—臺灣的實證研究

Corporate Social Responsibility and Financial Performance: Empirical Evidence from Taiwan

淡江大學財務金融系助理教授　張元

Yuan Chang
Assistant professor of the Department of Banking and Finance, Tamkang University

企業社會責任與財務績效—臺灣的實證研究

張　元
淡江大學財務金融系助理教授

中文摘要

我們以遠見雜誌於2006年公佈的企業社會責任調查為基礎，將衡量企業社會責任績效的三個層面——社區參與、環境保護與財務透明，透過投資組合分析與迴歸分析來評估公司承擔社會責任與財務績效之間的關係。實證結果發現，首先，平均來說，公司的社會責任評分愈高，在評比結果公布後的股票報酬愈低，兩者之間呈現負向關係；第二，公司在不同層面的社會責任行為對於股價報酬的影響具有差異性。第三、透過公司的長期財務資料發現，社會責任評分高的公司其長期平均會計績效相對較佳，但長期平均的股票報酬相對較低，表示社會責任型公司不一定是一個好的投資標的。最後，我們找不到支持社會責任行為可以做為公司績效保險的證據。本文使用各別層面的評比指標可更廣泛地評估社會責任行為對財務績效的影響，改進既有文獻中僅使用單一指標的不足之處。

關鍵字：企業社會責任、財務績效
（**JEL分類代號**：G10、G14、M14、M20）

I. Introduction

The concept of Corporate Social Responsibility (CSR)[1] is gaining more and more attention in both the business and academic fields. Based on the concept of CSR, Socially Responsible Investment (SRI) describes an investment strategy which combines the intentions to maximize both financial return of stockholders and social benefits of stakeholders and is prevalent in major financial markets.[2] According to Scholtens (2005) and Schroder (2004), it is estimated that SRI represent 2 trillion and 2.5 billion Dollars in assets in U.S. and Asia, respectively.

A key question for investors considering firm's engaging in CSR activities is whether these firms forfeit financial returns for the sake of their concern for the environment or stakeholders of a society. More detail, firms with CSR outperform firms without considering CSR? Are good firms good investments? This topic has been the subject of numerous studies but their conclusion is controversial. Theoretically, there are two conflicting views regarding the impact of engaging in CSR activities on the financial performance of a firm. One is the *social impact hypothesis*, proposed by

1. According to World Business Council for Sustainable Development (WBCSD), CSR is defined as "the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large". While there exists other definitions of CSR, they are similar. For example, Frooman (1997) define CSR as "An action by a firm, which the firm chooses to take, that substantially affects an identifiable social stakeholder' s welfare". McWilliams and Siegel (2001) describe CSR as "actions that appear to further some social good, beyond the interest of the firm and that which is required by law".
2. SRI is an investment process that considers social and environmental consequences of investments within the context of rigorous financial analysis in order to encourage corporate social responsibility such as environmentally responsible, support workplace diversity, and increase product safety and quality. Some (not all) also avoid businesses involved in alcohol, tobacco, gambling, weapons and other military industries, and/or abortion.

Cornell and Shapiro (1987) and Preston and O'Bannon (1997) and the other is the *shift of focus hypothesis* proposed by Becchetti, Ciciretti and Hasan (2007), where the former suggests that CSR a has positive relation with firm performance and the latter the opposite.

For the *social impact hypothesis*, Moskowitz (1972), Parket and Eibert (1975), and Soloman and Hansen (1985) firstly advocate that CSR garners more benefits than the cost incurred. Other studies also proposed views that CSR has a positive effect on performance through several channels such as providing a better working place improves employee productivity (Turban and Greening, 1997); donating to public benefits increases social reputation, trust (Bowman and Haire, 1975; Alexander and Bucholtz, 1978), brand image and product competitiveness (Porter and van der Linde, 1995; Fombrun, Gardberg and Barnett, 2000); getting favors with investment institutions (Spicer, 1978; Moussavi and Evans, 1986); obtaining better insurance protection of brand image and financial performance during economic downturns or specific negative events (Tsoutsoura, 2004; Werther and Chandler, 2005; Peloza, 2006).

The *shift of focus hypothesis* state that most of the CSR activities such as employee and community relationships, environmental protection and corporate governance are involved with a shift of focus from the maximization of stockholders' value to concern of interests of a wider set of stakeholders and are cost increasing. Previous studies also argue that corporations engaged in CSR activities are found to have lower market competitiveness and worse performance through inefficient use of resources (Friedman, 1970), product development limitation (Bragdon and Marlin, 1972) and maintaining cost-pushing and non-profitable social activities (Vance, 1975; Aupperle, Carroll and Hatfield, 1985; Ullmann, 1985).

Particularly, public responsiveness of philanthropic behavior is apathetic and the feedback effect on financial performance is insignificant (Walley and Whitehead, 1994; Henderson, 2002).

A significant body of empirical studies also reached mixed results. We compress existing empirical studies about CSR and financial performance into three categories, and the main difference is about the measurement of firm performance. The performance measures of the first kind of study is accounting-based, like ROA, ROE, for examples, supporters of *social impact hypothesis*, Cochran and Wood (1984), adopted Moskowitz's (1972) reputation index, which rates firms into outstanding, honorable mention and worst companies, as the proxy of CSR measurement. They found CSR ratings positively affect firms' return on assets and return on sales. Waddock and Graves (1997) employed another similar reputation rating developed by Kinder, Lydenberg and Domini (KLD) as the proxy of CSR[3] and also found that past and current KLD ratings are positively related to firm's ROA. Tsoutsourz (2004) also employed KLD rating confirming the results with positive relationship between CSR and ROA, ROE and ROS. Griffin and Mahon (1997), Orlitzky, Schmidt and Rynes (2003), Guenster, Derwall, Bauer and Koedijk (2005), Aigner (2006), Nelling and Webb (2009) and Dam (2006) provided summary of this strand of studies.

While the accounting-based measures have only an indirect impact on stockholders' wealth, the second kind of studies use market-based measures like stock returns as performance measure. Earlier studies, such as Vance (1975), employed Moskowitz's (1972) ratings and found that firms with better ratings have inferior stock returns. Newgren, Rasher, LaRoe and Szabo (1985)

3. KLD assessed the performance of multi-dimension stakeholder's concerns among S & P 500 companies.

found that those firms with environmental assessment get inferior stock market returns.

Lately, with development of concept of SRI, Brammer, Brooks and Pavelin (2005a) proposed a theoretical view about CSR and stock returns. They argue that from the perspective of a firm, given the efficient markets hypothesis satisfied, equilibrium should develop whereby engaging in expenditure on socially responsible activities takes place up to the point where its marginal profitability is zero. Thus, the returns to socially responsible and irresponsible firms should be the same, for given levels of risk and other firm characteristics. At the portfolio level, however, if this argument concerning the neutrality of corporate responsibility for returns holds, then investors must be made unambiguously worse off by the social responsible screening-out process. Removing some stocks, sectors, or even whole countries on ethical grounds from the investable universe of securities will reduce portfolio efficiency.

From the viewpoint of portfolio analysis, some studies make comparison of stock returns between SRI funds and NonSRI funds.[4] Guerard (1997a) collect stock returns of 1,300 socially screened and 950 socially unscreened firms during 1987 and 1994 and find that there is little significant difference between the performances of socially screened versus unscreened investments. Kahn *et al*. (1997) show that divesture of tobacco stocks from S & P 500 firms would have made little difference to typical investors returns since allocations to such stocks is usually very small. Following his previous work, Guerard (1997b) shows that investment screens to exclude

4. Brammer, Brooks and Pavelin (2006) state that if the research make comparison stock performance between SRI and NonSRI funds will suffer from identification problem, that' s the performance difference should attribute to good firms or good funds managers.

environmental or alcohol/tobacco/gambling or nuclear stocks actually yield higher average returns than unscreened investments. Using more recent data for 1990-98, Statman (2000) use data during 1990 to 1998 to examine the performance of the Domini Social Index (DSI) and S & P 500 Index. They find that DSI slightly outperformed the S&P Index in pure returns, but showed slight underperformed on a risk-adjusted basis. Shefrin and Statman (2003) and Anginer, Fisher and Statman (2008) using CSR ratings of over 600 U.S firms by *Fortune*, and find that firms with better ratings get lower stock returns.

Most of earlier studies of the performance of SRI- versus NonSRI-funds did not control for differential levels of risk between them. However, Hamilton, Jo and Statman (1993) use the CAPM framework to examine the performance of 32 socially responsible mutual funds during 1981 to 1991. Their empirical results show only two significant alphas with one positive and the other negative and they conclude that the market does not price socially responsible characteristics. Bauer, Koedijk and Otten (2002) use multi-factor model to show that both German and US ethical funds underperform their benchmark but outperform similar UK funds. Barnett and Salomon (2002) use 28 years of data on 67 socially responsible funds and find a U-shaped relationship between performance and the strength of the social responsible screen. They argue that funds which employ minimal screens are still able to diversify well, while funds that employ very strict screens are able to filter out poor quality firms effectively; funds with intermediate-level screens are found to provide the weakest performance. Brammer, Brooks and Pavelin (2005b) examine performance of America's 100 Best Corporate Citizens surveyed by *Business Ethics* and find evidence of negative abnormal returns of around 3%, but with positive abnormal returns after controlling firm

characteristics and risk factors.

At the firm level, Feldman, Soyka and Ameer (1997) use environmental aspect of CSR and find evidence that firms who improve their environmental performance can get lower CAPM betas and higher stock prices. Antunovich, Laster and Mitnick (2000) use CSR rating by the *Fortune* and get results of firms with better ratings get higher stock returns. Anderson and Smith (2006) get similar results. Derwall, Gunster, Bauer and Koedijk (2004) employ data from the Innovest rating database of "eco-efficiency" scores thus only cover environmental issues of CSR for the period 1995-2003. They form two portfolios which are composed of the highest and lowest eco-efficiency scores. Under CAPM framework and using a multifactor model and incorporating industry effects, their findings support high-scoring portfolio significantly outperforms the low-ranking one. Brammer, Brooks and Pavelin (2005a) examined the relationship between stock returns and CSR which is proxied by the composite indicator constructed from three aspects of CSR activities, environmental protection, employee interests and community relationship. They found that scores on a composite indicator are significantly negatively related to stock returns. This negative relationship is explained by the negative relation between disaggregate measure of employee interests and financial performance but not by the other two measures.[5]

One important concern is that CSR is multi-dimensional, such as public donation, taking account of employee and consumers' benefits, maintaining working opportunity of underprivileged minority, environmental protection of

5. The third method is the event studies about impact on short-run stock returns from emersion of engagement or contravention of CSR activities, such as Posnikoff (1997), Wright and Ferris (1997), Teoh, Welch and Wazzan (1999), Brammer, Brooks and Pavelin (2005) and Becchetti, Ciciretti and Hasan (2007).

community and ecology, corporate governance and accounting transparency, etc. Various aspects of CSR activities bear different degree of importance among different industries of firms. Porter and Kramer (2006) suggested that managers should put a new premium on specific area of CSR issues that are most beneficial to the core business of the firm. For example, the issue of environmental protection is not the most important concern for pharmaceutical firm. Instead, they can make efforts in development and deterrence of HIV proliferation in Africa. Brammer and Pavelin (2005) provide evidence to show that a firm will get most improvement of its reputation and financial performance when they engage into the specific aspects of CSR activities that meet the greatest concern by stakeholders.

The number of studies which using disaggregated measures of CSR activities to examine relation between CSR and financial performance is rare. The only exception is Brammer, Brooks and Pavelin (2005a). In Taiwan, the *Global Views Monthly*, a leading magazine related to management and finance, develops a similar framework to evaluate social responsibility of a firm from three dimensions, that is, a firm's performance on community participation, environmental protection and financial transparency. To be more specific, they refer to OEKOM, an independent research and rating agency of CSR in Germany, to design a questionnaire about engagement and effectuation of the above three aspects for listing companies on the Taiwan Stock Exchange. They then compute scores on each three dimensions of CSR activities based on respondents' reply and get composite score of 312 firms. The availability of disaggregate data on various aspects of CSR performance is likely to be important since CSR is mutli-faceted and these aspects may have differential impacts depending on the nature of the firm's business.

Following Brammer, Brooks and Pavelin (2005a), we relate 's three

disaggregate measures (interchangeable three individual scores thereafter) and composite measure (interchangeable with total score thereafter) to accounting and market performance of firms. Our analysis is threefold. First, as *Global Views Monthly*'s ratings made public in 2006Q2, we examine its relationship with subsequent stock returns of firms by portfolio comparisons and regression analysis. Second, we relate long-term financial performance to these four CSR measures. Third, based on composite measure, we examine whether high-score (top 40% quantile) firms exhibit less aggravating decline of their financial performance than low-score (bottom 40% quantile) firms in stagnations and support the view that CSR plays a role of insurance of financial performance.

Our basic findings are, first, score on composite social performance indicator is negatively related to subsequent stock returns and this relationship cannot be rationalized by multi-factor models for explaining the cross-sectional variation in stock returns. The poor market reward offered by such firms is attributable to their good social performance on the financial transparency and to a lesser extent the community participation and environmental aspects. The impacts on different aspects of social performance on stock returns are diverse among industries. Second, composite social performance indicator is positively related to long-term accounting performance but negatively related to long-term market performance. Third, high-score firms exhibit a more aggravating decline of their financial performance than low-composite-score firms in stagnations, and thus inconsistent with view that CSR as insurance of financial performance.

The organization of the paper is as follows. Section 2 describes the measures of corporate social responsibility and how *Global Views Monthly*'s compile the CSR data bank. Section 3 discusses the statistical methods,

section 4 presents the empirical results and section 5 concludes the paper.

II. Measures of CSR and Financial Performance

A. Measures of Corporate Social Responsibility

The estimation of the effects of CSR activities on financial performance of firms often confronts with the problem of rating firm's contribution on CSR activities. In early stage of research, the CSR performance is often measured by the amount of expenditure on polluting control investments, spending on environmental recuperation and protection (Bragdon and Marlin, 1972; Folger and Nutt, 1975; Spicer, 1978). Other studies use prestige investigation from business school students, and social reputation ratings by leading business magazines, such as the *Fortune*, *Times* and *Business Ethics* (McGuire et al., 1988; Herremans, Akathaporn and McInnes, 1993 and Preston and O'Bannon, 1997).[6]

More recently, some research and financial institutions, like the above mentioned KLD and Financial Times Stock Exchange,[7] develop some widely

6. For example, *Fortune* magazine has been publishing the results of an annual survey of company reputations since 1983 by asking thousands of senior executives, directors and securities analysts who responded to the survey to rate the ten largest companies in their industries on eight attributes of reputation, using a scale of zero (poor) to ten (excellent). The attributes were quality of management; quality of products or services; innovativeness; long-term investment value; financial soundness; ability to attract, develop, and keep talented people; responsibility to the community and the environment; and wise use of corporate assets. The score of a company is the mean of the ratings on the right attributes. Surveys were published in January during 1983-1990, February during 1991-1994 and March during 1995-2006. Anderson and Smith (2006) and Antunovich, Laster and Mitnick (2000) found that stocks of companies ranked high by *Fortune* had higher subsequent returns than stocks that ranked low. But Shefrin and Statman (2003) found conflicting results.
7. FTSE, a jointly owned company by London Stock Exchange and Financial Times, provides financial indices.

acknowledged social responsible criteria which gradually became an international standard. For example, KLD rate firms as a CSR firms on the basis of the eight criteria, i.e., community, corporate governance, diversity, employee relations, environment, human rights, product quality and controversial business issues. Also, the firms included in FTSE's Index (FTSE4GOOD) must meet criteria requirements in three areas, environmental, social and stakeholders, and human rights. Also, those companies whose business interests are involved in tobacco, nuclear weapons and power station, and uranium are also excluded from the index. These indices have been widely employed.[8]

In Taiwan, the *Global Views Monthly*, develops a framework to evaluate social responsibility of a firm from three dimensions, that is, a firm's performance on community participation (COM), environmental protection (ENV) and financial transparency (FIN). To be more specific, they refer to OEKOM, an independent research and rating agency of CSR in Germany, to design a questionnaire about engagement and effectuation of the above three aspects for listing companies on the Taiwan Stock Exchange. They then compute scores on each three dimensions of CSR activities based on respondents' reply, totally 312 firms. Finally, they ranked companies according to their total scores (TOT) of three aspects. The announcement of this ranking is on May 2006.

One caveat is worth noting. Firms with the following infamies are eliminated from the rating: negative events challenged by government agencies like Environmental Protection Administration or Council of Labor

8. Chih, Shen and Kang (2007) apply FTSE4GOOD to study the relationship between the earnings management and CSR. Waddock and Graves (1997), Tsoutsoura (2004) use KLD ratings to study the performance between CSR and financial performance.

Affairs; major controversy between the labor and capital, aggravation with consumers, litigation and departure restrictions of CEO; and losses for three years. Table 1 shows the name list of firms with the highest scores on various CSR measures. Firms with highest total score on aggregate CSR measure in order are Delta Electronics, TSMC, BenQ, CMC and Advantech Co. Table 2 shows scores of CSR measures for firms based on traditional industry (T.I), financial industry (F.I), electronic industry (E.I) and transportation, tourism, trade and merchandise industry (TTTM.I). On average, financial industry gets highest total scores and traditional industry is lowest. For community participation, performance of financial industry is best and traditional industry is worst.

Table 1. Firms with Highest Scores on CSR Measures

CSR Measures			
Scores on Community Participation(COM)	**Scores on Environmental Protection (ENV)**	**Scores on Financial Transparency (FIN)**	**Total Score (TOT)**
Delta Electronics	Delta Electronics	Delta Electronics	Delta Electronics
TSMC	TSMC	TSMC	TSMC
BenQ	Advantech Co.	BenQ	BenQ
E.SUN FHC	BenQ	CMC	CMC
CMC	CMC	Advantech Co.	Advantech Co.

Table 2. Scores of CSR Measures for Industries

CSR Measure / Industry	COM		ENV		FIN		TOT	
	Mean	**St. Dev**	**Mean**	**St. Dev**	**Mean**	**St. Dev**	**Mean**	**St. Dev**
T.I	38.3	9.02	8.42	2.92	19.3	4.41	66.0	13.5
F.I	43.0	9.14	6.85	2.31	21.4	4.19	71.3	13.1
E.I	40.4	8.02	8.71	2.82	20.6	4.17	69.7	11.7
TTTM.I	39.8	8.54	8.26	2.70	19.7	5.29	67.7	12.3
All samples of Firms	39.7	8.64	8.43	2.84	20.1	4.39	68.2	12.7

B. Measures of Financial Performance

Various measures of financial performance in this area of research are classified as market-based and accounting-based measures. According to McGuire et al. (1988), while the former are forward-looking but subjective and easily affected by investor sentiment, the latter are historical and objective but incurring accounting manipulation and earning management.[9] Moore (2001) proposed that using accounting measures is more valid. In this study, we use return on asset (ROA), return on equity (ROE), earnings per share (EPS), stock returns (STK) and price earnings ratio (P/E Ratio). The first three measures are accounting-based, and the last two are market-based. It is also worth-noting that for factors influencing cross-section stock returns of firms, we consider three factors of Fama and French (1992), market risk (BETA), market to book value (MTBV), size measured by capital (CAPITAL). We also consider and momentum factor (MOM) of Carhart (1997).

Because the *Global Views Monthly* announce CSR ranking on May 2006, we collect stock returns from June 2006 to Feb 2007 and annualized to yearly stock returns and defined as our subsequent stock returns. The reason of using CSR scores in May 2006 and stock returns from June 2006 to Feb 2007 is getting rid of reverse causation problem, that's we avoid the problem of reverse causation of CSR scores by firm's stock returns. Available data on firm characteristic and performance variables are collected from database of the Taiwan Economic Journal (TEJ).

---

9. Using market measures as performance variables are Alexander and Buchholz (1978), Vance (1975), Brammer, Brooks and Pavalin (2005a,b). The studies used accounting measures are Cochran and Wood (1984), Waddock and Graves (1997), and Tsoutsoura (2004). Using both measures are Griffin and Mahon (1997) and Moore (2001).

Table 3 presents correlation coefficient matrix for variables of our analysis, and numbers within parentheses are p-values of thesis coefficients. From the fifth row, we observe that total score are highly positively and significantly correlated with score on community participation, environmental protection and financial transparency. This is a matter of course because total score is aggregation of three disaggregate measures. As we will mention, in our regression analysis, we avoid putting four measures into one regression equation to get rid of multi-collinearity problem.

Table 3. Correlation Matrix of Variables

	COM	ENV	FIN	TOT	Subs. Returns	Market Risks	M/B Ratio	Capital	Mom
COM	1.0000								
ENV	0.4897 (0.000)	1.0000							
FIN	0.3811 (0.000)	0.2229 (0.000)	1.0000						
TOT	0.9236 (0.000)	0.6353 (0.000)	0.6570 (0.000)	1.0000					
Subs. Returns	-0.0995 (0.079)	-0.0556 (0.327)	-0.1434 (0.011)	-0.1300 (0.022)	1.0000				
Market Risks	0.1261 (0.028)	0.1105 (0.054)	0.0402 (0.485)	0.1246 (0.030)	-0.0161 (0.780)	1.0000			
M/B Ratio	0.0708 (0.216)	0.0126 (0.827)	0.1499 (0.009)	0.1029 (0.072)	-0.0764 (0.182)	0.0833 (0.148)	1.0000		
Capital	0.3459 (0.000)	0.1997 (0.000)	0.1864 (0.001)	0.3450 (0.000)	-0.0961 (0.093)	0.2191 (0.000)	0.0367 (0.522)	1.0000	
Mom	-0.0145 (0.801)	0.0369 (0.520)	0.0097 (0.866)	0.0018 (0.976)	0.1253 (0.028)	0.1497 (0.009)	0.1555 (0.006)	-0.0988 (0.084)	1.0000

From the sixth row, we observe that subsequent returns are slightly and negatively correlated with three of four CSR measures, for example, correlation coefficient between subsequent returns and total score is -0.13,

means that firms with higher CSR ratings have lower subsequent stock returns. Size measure, CAPITAL is positively correlated with four CSR measures, implies that large firms tend to get higher CSR ratings. Some other characteristics of firms are also highly correlated with CSR measures.

III. Data and Statistical Methods

As above mentioned, most of studies examine the subsequent stock performance and long-term future financial performance as CSR ratings made public. In this paper, we define stock return from June 2006 to Feb 2007 as subsequent return and can also seen as holding period returns for investors. Using returns after CSR ratings announcement, we can make causal inference for CSR ratings impact on stock performance.

Our analysis is threefold. First, we relate CSR ratings to subsequent returns by using portfolio and regression analysis. For portfolio analysis, according to three disaggregate measures and one aggregate measure, we separate firms into five groups. The first group (Group I hereafter) composed of firms with top 20% quantile of the given measure. The second group (Group II hereafter) composed of firms with 20%-40% quantile. The final group (Group V hereafter) composed of firms with bottom 20% quantile of the given measure. We compute subsequent gross portfolio returns of each group. We also calculate subsequent portfolio returns excess of market index returns of each group. Portfolio returns are calculated by two methods. The one is weighted by market capitalization of each firm, and the other is equally weighted of returns in each firm for a given group. Because grouping firms is based on descending CSR ratings, comparing subsequent returns of each group of firms could inference the relationship between CSR ratings and subsequent stock returns. If the stock returns of the group which composed of

firms with higher ratings is systematically larger than group with lower CSR ratings, then it implies that firms with higher CSR ratings tends to get higher stock returns.

For regression analysis, we regress three disaggregate measures and one aggregate measure on the subsequent stock returns. Thus, the explained variable of regression equation is subsequent stock return, and explanatory variables are scores on community participation, environmental protection and financial transparency and total score. If we consider including three factors of Fama and French (1993) and momentum factor of Carhart (1997) as control factors, our regression model is as follow:

$$R_{i,t} = \alpha_0 + \alpha_1 COM_{i,t-1} + \alpha_2 ENV_{i,t-1} + \alpha_3 FIN_{i,t-1} + \alpha_4 TOT_{i,t-1} + \alpha_5 BETA_{i,t-1} + \alpha_6 PTBV_{i,t-1} + \alpha_7 CAP_{i,t-1} + \alpha_8 R_{i,t-1} + \varepsilon_{i,t}$$

where $R_{i,t}$ is subsequent stock return of firm i in time t, COM is score on community participation, ENV is score on environmental protection, FIN is score on financial transparency and TOT is total score, BETA is measure of market risk in CAPM, PTBV is market to book value, CAP is capital, $R_{i,t-1}$ is momentum factor, which is defined as one-year stock return prior to announcement of CSR rating. is the error term.

As we consider that aggregate measure of CSR is sum of scores of three disaggregate measures, in order to avoid multi-collinearity problem, we do not include all CSR measures in one regression equation. Instead, we set our regression model for four model specifications, that using three disaggregate measures but not control four factors (Model I), using aggregate measure but not control four factors (Model II), using three disaggregate measures and control four factors (Model III), using aggregate measure and control four factors (Model IV). Following are regression equations for four models:

Model I：$$R_{i,t} = \alpha_0 + \alpha_1 COM_{i,t-1} + \alpha_2 ENV_{i,t-1} + \alpha_3 FIN_{i,t-1} + \varepsilon_{i,t} \quad (1)$$

Model II：$R_{i,t} = \alpha_0 + \alpha_4 TOT_{i,t-1} + \varepsilon_{i,t}$ (2)

Model III：$R_{i,t} = \alpha_0 + \alpha_1 COM_{i,t-1} + \alpha_2 ENV_{i,t-1} + \alpha_3 FIN_{i,t-1} + \alpha_5 BETA_{i,t-1} + \alpha_6 PTBV_{i,t-1} + \alpha_7 CAP_{i,t-1} + \alpha_8 R_{i,t-1} + \varepsilon_{i,t}$ (3)

Model IV：$R_{i,t} = \alpha_0 + \alpha_4 TOT_{i,t-1} + \alpha_5 BETA_{i,t-1} + \alpha_6 PTBV_{i,t-1} + \alpha_7 CAP_{i,t-1} + \alpha_8 R_{i,t-1} + \varepsilon_{i,t}$ (4)

The estimation of the regression models are not only based on a combined sample of all types of firms but also on specific industries, that are traditional industry, financial industry, electronic industry and transportation, tourism, trade and merchandise industry.

In second part of our analysis, we relate CSR ratings to longer-term financial performance, where performance measures are returns on assets, returns on equity, earnings per share, stock return and price earnings ratio. The performance data of this part of analysis is ranged from 2002Q2 to 2006Q2. Although our CSR ratings are made public in May 2006, we assume that CSR ratings could be a roughly social performance proxy measures from 2002 to 2006. Thus, we could use these measures to analyze longer-term CSR activities and financial performance.

We use correlation coefficient and portfolio analysis to relate CSR ratings and five year average financial performance of firms. Similar as above, according to three disaggregate measures and one aggregate measure, we separate firms into five groups and compute long-term average financial performance of each group. We also calculate the Sharpe ratio of each group to control for risk because the Sharpe ratio measure excess returns per unit of risk for given portfolio. To compute five-year average Sharpe ratio, we first subtract yearly gross return by risk-free interest rate and divided by standard deviation of returns for given year. Then, we average them into five-year average Sharpe ratios. Larger Sharpe ratio means higher returns after

considering the risk of returns.

As far as our third part of analysis, although the most of researches related corporate social performance to its financial performance, some examine influence of firm's CSR activities on consumer satisfaction and purchase intentions (Sen and Bhattacharya, 2001); sales growth (Brown and Dacin, 1997); business image (Fombrun and Shanley, 1990) and employee loyalty, the number of study which examining CSR as insurance protection of firms is rare. Refer to Peloza (2006), an important yet underemphasized benefit from CSR is insurance against negative events that would otherwise harm financial performance. Although previous researchers conceptualized CSR as a form of "operating license" or simply the actions of the firm that conform to social norms, the potential for CSR to act as an insurance policy that can mitigate the effects of negative events.

For this analysis, we extend the data from 1991 to 2006 and examine whether high-CSR-ratings firms suffer less severe performance decreases during recessions or negative specific events, such as Blacconiere and Patten (1994). We use Monitoring Indicator constructed by the Council for Economic Planning and Development (CEPD) and compare financial performance of Group I and II (top 40% quantile of CSR ratings of firms) versus group IV and V (bottom 40% quantile of CSR ratings of firms). Insurance protection of performance is valid if we get smaller performance decay of Group I and II than Group IV and V.

IV. Empirical Results

A. CSR and Subsequent Stock Returns

(A) Analysis of Portfolio Returns

Table 4 shows subsequent stock returns of five groups of firms from five samples of firms, that are samples of all 307 firms, 126 firms of traditional industry, 24 financial industries, 132 electronics industries and 25 transportation, tourism, trade and merchandise industries, which presents in Panel A to Panel E. Each group is composed of firms with different CSR ratings at descending order, that's the group I composed of firms with top 20% quantile of CSR ratings, group II composed of firms with 20%-40% quantile of CSR ratings and the portfolio return of each group is calculated as weighted average by market capitalization of each firm.

Interesting findings are presented first. Group I and II get negative excess market returns regardless of using three disaggregate measures or aggregate measure. Second, using measure of community participation for ranking, portfolio return of Group I is the lowest of the five groups, 14.24% (market excess returns is-6.16%). Similar results occur when financial transparency and aggregate measure are used for ranking, and the subsequent returns of group I are 16.04% and 14.48%, respectively. When measure of environmental protection for rankings basis, stock performance of Group II is worst and it's subsequent portfolio returns is 7.96% and market excess returns is -12.44%. Third, higher subsequent portfolio returns occur in groups with lower CSR ratings. For example, as environmental protection as the CSR measure, group V gets the highest returns, as financial transparency as the

CSR measure, group IV got the highest returns. Fourth, the most interesting, the portfolio stock performance difference between group I and group V is negative regardless of CSR measures, implying there exists a trend that groups with higher CSR ratings get lower subsequent stock returns. Thus, we find that better performance in CSR does not necessarily get better stock performance. Instead, there are valuation discounts to firms with better CSR performance.

Panel B shows similar arrangement as Panel A but using traditional industry as samples. We observe that, first, market excess returns of five groups are positive, means that stock performance of traditional industry is good during this period. Second, under the rankings of four CSR measures (community participation, environmental protection, financial transparency and aggregate measure in order), the groups with highest stock performance are group V, group III, group IV and group II, the groups with worst stock performance are group IV, group II, group II and group I. Third, performance difference between group I and group V are all negative. Thus, we get a trend that the groups with better CSR ratings will get lower subsequent stock performance. CSR discount still exists as we use only firms belonging to traditional industry.

Table 4. Weighted Average Stock Returns of Five Groups of Firms

Panel A. All Firms (Samples: 307)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**No.Firms**
Group I	14.24	-6.16	17.04	-3.36	16.04	-4.36	14.48	-5.92	62
Group II	16.25	-4.15	7.960	-12.4	16.49	-3.91	18.31	-2.09	62
Group III	28.55	8.15	22.65	2.25	17.13	-3.27	19.00	-1.40	61
Group IV	25.71	5.31	15.08	-5.32	23.96	3.56	26.24	5.84	61
Group V	19.66	-0.74	27.60	7.20	20.98	0.58	19.33	-1.07	61
Diff (I and V)	-5.42		-10.56		-4.94		-4.85		

Panel B. T.I (Samples: 126)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**No.Firms**
Group I	30.57	10.17	29.75	9.35	33.96	13.56	28.89	8.49	25
Group II	27.01	6.61	25.13	4.73	24.09	3.69	34.45	14.05	25
Group III	33.04	12.64	35.61	15.21	28.96	8.56	29.52	9.12	25
Group IV	24.83	4.43	27.15	6.75	31.71	11.31	31.73	11.33	25
Group V	41.73	21.33	32.47	12.07	34.08	13.68	32.88	12.48	26
Diff (I and V)	-11.16		-2.72		-0.12		-3.99		

Panel C. F.I (Samples: 24)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**No.Firms**
Group I	13.71	-6.69	12.48	-7.92	2.19	-18.2	12.63	-7.77	5
Group II	11.59	-8.81	10.78	-9.62	11.86	-8.54	11.22	-9.18	5
Group III	-5.40	-25.80	11.58	-8.82	11.21	-9.19	13.11	-7.29	5
Group IV	27.28	6.88	12.59	-7.81	13.75	-6.65	13.36	-7.04	5
Group V	7.33	-13.07	13.97	-6.43	11.71	-8.69	7.00	-13.40	4
Diff (I and V)	6.38		-1.49		-9.52		5.63		

Panel D. E.I (Samples:132)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	STK	E.STK	STK	E.STK	STK	E.STK	STK	E.STK	No.Firms
Group I	8.50	-11.90	13.57	-6.83	11.39	-9.01	9.60	-10.80	26
Group II	19.81	-0.59	1.34	-19.06	23.41	3.01	20.16	-0.24	26
Group III	21.93	1.53	10.97	-9.43	7.56	-12.84	12.08	-8.32	26
Group IV	12.91	-7.49	24.06	3.66	8.14	-12.26	17.11	-3.29	27
Group V	18.43	-1.97	25.52	5.12	11.39	-9.01	14.52	-5.88	27
Diff (I and V)	-9.93		-11.95		0.00		-4.92		

Panel E. TTTM.I (Samples:25)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**No.Firms**
Group I	13.09	-7.31	13.98	-6.42	15.81	-4.59	13.63	-6.77	5
Group II	20.16	-0.24	21.39	0.99	21.42	1.02	11.35	-9.05	5
Group III	42.79	22.39	20.11	-0.29	27.03	6.63	49.69	29.29	5
Group IV	51.12	30.72	70.40	50.00	45.17	24.77	52.12	31.72	5
Group V	35.24	14.83	2.96	-17.44	48.08	27.68	37.25	16.85	5
Diff (I and V)	-22.15		11.02		-32.27		-23.62		

Panel C shows a similar arrangement as Panel B but using financial industry as samples. We observe that, the first, market excess returns of most of the groups are negative, meaning that stock performance of this industry is weak during this period. Second, under the rankings of four CSR measures (community participation, environmental protection, financial transparency and aggregate measure in order), the groups with the highest stock performance are group II, group V, group IV and group IV, the groups with the worst stock performance are group III, group II, group I and group V. Third, the situation of performance difference between group I and group V are negative occurs when environmental protection and financial transparency are used as the CSR rankings. Thus, the former trend of higher CSR group get lower stock returns deteriorate.

Panel D and Panel E show similar arrangement as before. We observe that, the first, under the rankings of four CSR measures (community participation, environmental protection, financial transparency and aggregate measure in order), the groups with highest stock performance are group I, group II, group III and group I, the groups with worst stock performance are group III, group IV, group II and group II. Second, the situation of

performance difference between group I and group V are negative only occurs when financial transparency as CSR rankings. Third, in TTTM industry, the situation of performance difference between group I and group V are all negative except for environmental protection measure are used. Thus, CSR discount still occurs in TTTM industry.

As we compare last row of Panel B to Panel E of Table 4, we can understand the CSR discount among four industries. For community participation as CSR measure, the largest CSR discount occurs in TTTM industry, -22.15%, the smallest CSR discount occurs in financial industry, 6.38%. For environmental protection as CSR measure, the largest CSR discount occurs in electronic industry, -11.95%, the smallest CSR discount occurs in financial industry, 11.02%. For financial transparency as CSR measure, the largest CSR discount occurs in TTTM industry, -32.37%, the smallest CSR discount occurs in electronic industry, 0.00%. For aggregate CSR measure is used, the largest CSR discount occurs in TTTM industry, -23.62%, the smallest CSR discount occurs in financial industry, 5.63%.

From the above analysis, we know that the public responses of CSR activities are different according to different aspects of CSR and industries. For example, the public give positive valuation of financial industry on efforts on activities on community participation, but negative valuation to TTTM industry. The public give large negative valuation of electronic industry on efforts in environmental protection, but positive valuation to TTTM industry. The public give neutral valuation of electronic industry on efforts in financial transparency, but negative valuation to TTTM industry. Thus, this result implies that the public give different valuation to the efforts of different aspects of CSR activities. This conform to the proposition by Porter and Kramer (2006) that business should not blindly engage themselves in any

scope of CSR activities, instead, wise managers have to put a new premium on specific area of CSR issues that most to be beneficial to core business of firm and topics which the public most concerned. Speaking in more detail, a firm should devote to a CSR issue which not only have benefits to social but also establish competitive advantage, achieve a positive-sum game rather than zero-sum game.

Table 5 shows subsequent stock returns of five groups of firms from five samples of firms, that are samples of all 307 firms, 126 in traditional industry, 24 in financial industry, 132 in electronics industry and 25 in the transportation, tourism, trade and Merchant industry, which are present in Panels A to E. While the portfolio returns of each group are calculated as equally weighted average by market of each firm's return, each group are composed of firms with different CSR ratings at descending order, that's the group I composed of firms with top 20% quantile of CSR ratings, group II composed of firms with 20%-40% quantile of CSR ratings. Because portfolio returns of groups are equally weighted, we can perform t-test for group comparisons.

For Panel A, when all samples are used, under the rankings of four CSR measures (community participation, environmental protection, financial transparency and aggregate measure in order), the groups with highest stock performance are group III, group V, group V and group IV, while the groups with worst stock performance are group I, group III, group I and group I. Performance difference between group I and group V are all negative, for example, when community participation are used as CSR measure, difference of stock return between group I and group V are -7.14, but not significant; when financial transparency are used as CSR measure, difference of stock return between group I and group V are negatively significant, -7.14; when

aggregate CSR measure is used as CSR measure, difference of stock return between group I and group V are -11.23 and are significant. We got a similar trend as before that the groups with better CSR ratings will get lower subsequent stock performance, thus CSR discount exists.

From Panel B, the trend with higher CSR group get lower stock returns is not so evident, and so is the CSR discount. Similar results are gained from panel C to D. From Panel E we find that when financial transparency is the CSR measure, significant negative CSR discount exists. Significant CSR discount exist with environmental protection as the CSR measure. Thus, as with the MMMT industry, efforts on CSR activities should concentrate on financial but not environmental aspects. Thus, as before, firms should engage CSR in most-favored aspects by investors.

Table 5. Simple Average Stock Returns of Five Groups of Firms

Panel A. All Firms (Samples: 307)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**STK**	**E.STK**	**No.Firms**
Group I	20.46	0.06	23.16	2.76	18.96	-1.44	18.06	-2.34	62
Group II	21.91	1.51	26.30	5.90	23.99	3.59	23.38	2.98	62
Group III	30.83	10.43	21.50	1.10	23.66	3.26	28.94	8.54	61
Group IV	28.88	8.48	28.67	8.27	30.30	9.90	30.01	9.61	61
Group V	27.60	7.20	29.92	9.52	32.74	12.34	29.29	8.89	61
Diff (I and V)	Statistics	p-value	Statistics	p-value	Statistics	p-value	Statistics	p-value	
	-7.14	0.1138	-6.76	0.1328	-13.78	0.0151	-11.23	0.0227	

Panel B. T.I (Samples: 126)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	STK	E.STK	STK	E.STK	STK	E.STK	STK	E.STK	No.Firms
Group I	30.06	9.66	26.52	6.12	29.75	9.35	23.34	2.94	25
Group II	27.02	6.62	32.30	11.90	25.01	4.61	39.32	18.92	25
Group III	32.88	12.48	31.10	10.70	34.22	13.82	25.76	5.36	25
Group IV	27.46	7.06	37.23	16.83	32.79	12.39	30.84	10.44	25
Group V	39.14	18.74	29.79	9.39	34.96	14.56	37.38	16.98	26
Diff (I and V)	Statistics	p-value	Statistics	p-value	Statistics	p-value	Statistics	p-value	
	-9.08	0.2128	-3.27	0.3737	-5.21	0.3031	-14.04	0.0946	

Panel C. F.I (Samples: 24)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	STK	E.STK	STK	E.STK	STK	E.STK	STK	E.STK	No.Firms
Group I	8.80	-11.60	10.19	-10.21	9.78	-10.62	12.17	-8.23	5
Group II	24.05	3.65	8.75	-11.65	11.38	-9.02	7.60	-12.80	5
Group III	7.64	-12.76	8.28	-12.12	13.40	-7.00	15.11	-5.29	5
Group IV	10.11	-10.29	20.91	0.51	16.74	-3.66	19.59	-0.81	5
Group V	12.62	-7.78	15.70	-4.70	11.75	-8.65	7.78	-12.62	4
Diff (I and V)	Statistics	p-value	Statistics	p-value	Statistics	p-value	Statistics	p-value	
	-3.82	0.2959	-5.51	0.1398	-1.97	0.4183	4.39	0.3147	

Panel D. E.I (Samples:132)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	STK	E.STK	STK	E.STK	STK	E.STK	STK	E.STK	No.Firms
Group I	14.28	-6.12	20.01	-0.39	19.25	-1.15	15.78	-4.62	26
Group II	19.04	-1.36	25.05	4.65	20.54	0.14	13.88	-6.52	26
Group III	33.77	13.37	9.82	-10.58	16.25	-4.15	31.93	11.53	26
Group IV	17.90	-2.50	26.30	5.90	29.15	8.75	26.71	6.31	27
Group V	23.44	3.04	26.98	6.58	23.25	2.85	20.37	-0.03	27
Diff (I and V)	Statistics	p-value	Statistics	p-value	Statistics	p-value	Statistics	p-value	
	-9.16	0.1686	-6.97	0.2464	-4.00	0.3384	-4.59	0.3089	

Panel E. TTTM.I (Samples:25)

CSR Measure	COM		ENV		FIN		TOT		
Portfolio	STK	E.STK	STK	E.STK	STK	E.STK	STK	E.STK	No.Firms
Group I	17.82	-2.58	28.35	7.95	28.78	8.38	35.65	15.25	5
Group II	26.38	5.98	35.09	14.69	20.57	0.17	50.06	29.66	5
Group III	38.75	18.35	36.12	15.72	36.95	16.55	47.97	27.57	5
Group IV	46.13	25.73	62.57	42.17	29.98	9.58	13.25	-7.15	5
Group V	36.79	16.39	3.73	-16.67	49.59	29.19	18.95	-1.45	5
Diff (I and V)	Statistics	p-value	Statistics	p-value	Statistics	p-value	Statistics	p-value	
	-18.97	0.1348	24.62	0.0598	-20.81	0.0981	16.7	0.1870	

(B) Regression Analysis Results

We use regression analysis to examine the relationship between measures of CSR and subsequent returns for firms. Our samples contain all previous firm types; traditional industry; financial industry; electronic industry; transportation, tourism, trade and merchant industry. For each group of samples, as we consider multi-collinearity among CSR measures and four factors of Fama and French (1992) and Carhart (1997), we have four kinds of estimated models. Table 6 reports the OLS estimation results.

We get several striking results. First, for all samples, for model I, the estimated coefficients for three disaggregate measures of CSR are negative but are significant for measures of financial transparency. It means that firms with more efforts in financial transparency have lower subsequent stock returns. If we control four factors, as in model III, similar results are obtained. Second, for model II, the estimated coefficients for aggregate measure of CSR is negative and significant (-0.369) and thus mean that firms with more efforts in aggregate CSR activities will have lower subsequent stock returns. We get similar results if we control four factors, as in model IV. Thus we draw the conclusion that firms with higher performance in CSR will get worse stock

returns and this relationship is mostly explained by the negative relationship between financial transparency and stock returns.

For samples of traditional industry, as shown in panel B, estimated coefficients of all measures of CSR are negative but insignificant regardless of what model specification. Although we cannot make a conclusion on the negative relationship between CSR and stock returns, we get clear results that engagement in CSR at least does not improve stock returns of firms. Similar results are obtained for financial and electronic industry, we shown in panel C and panel D. From model I in panel E, we observe that the estimated coefficient for financial transparency is negative and significant (-2.174); in model III, the estimated coefficient for community participation is negative and significant (-1.378).

Table 6. OLS Results of CSR Ratings and Subsequent Stock Returns

Panel A. All Firms (Samples: 307)

Estimated Coefficient	Intercept	COM	ENV	FIN	TOT	Four Beta Loadings			
	α_0	α_1	α_2	α_3	α_4	α_5	α_6	α_7	α_8
Model I	54.4 (4.77)	-0.212 (-0.75)	-0.041 (-0.050)	-1.006** (-2.021)					
Model II	50.6 (4.57)				-0.369** (-2.31)				
Model III	49.1 (4.01)	0.010 (0.03)	-0.467 (-0.60)	-0.890* (-1.88)		-0.294 (-0.04)	-1.408 (-0.04)	-5.98×10^{-8} (-1.08)	0.095 (1.89)
Model IV	45.7 (3.84)				-0.268* (-1.67)	0.101 (0.01)	-1.542 (-1.51)	-5.48×10^{-8} (-0.99)	0.094 (1.87)

Panel B. T.I (Samples: 126)

Estimated Coefficient	Intercept	COM	ENV	FIN	TOT	Four Beta Loadings			
	α_0	α_1	α_2	α_3	α_4	α_5	α_6	α_7	α_8
Model I	53.60 (3.44)	-0.140 (-0.34)	-0.064 (-0.05)	-0.843 (-1.11)					
Model II	50.34 (3.39)				-0.287 (-1.30)				
Model III	34.70 (2.00)	-0.066 (-0.17)	-1.014 (-0.84)	-0.414 (-0.57)		23.64 (2.24)	-2.887 (-1.59)	-1.79×10^{-8} (-0.14)	0.073 (0.78)
Model IV	35.44 (2.14)				-0.291 (-1.36)	22.68 (2.19)	-2.878 (-1.60)	-1.76×10^{-8} (-0.14)	0.078 (0.84)

Panel C. F.I (Samples: 24)

Estimated Coefficient	Intercept	COM	ENV	FIN	TOT	Four Beta Loadings			
	α_0	α_1	α_2	α_3	α_4	α_5	α_6	α_7	α_8
Model I	20.14 (1.10)	0.351 (0.77)	-1.598 (-1.01)	-0.541 (-0.65)					
Model II	17.91 (1.09)				-0.074 (-0.33)				
Model III	-5.875 (-0.20)	0.296 (0.52)	-0.058 (-0.03)	-0.598 (-0.62)		30.35 (1.67)	-8.391 (-0.74)	-1.87×10^{-8} (-0.02)	0.083 (0.30)
Model IV	-12.42 (-0.47)				0.049 (0.17)	31.33 (1.93)	-7.971 (-0.74)	1.62×10^{-8} (0.21)	0.024 (0.11)

Panel D. E.I (Samples: 132)

Estimated Coefficient	Intercept	COM	ENV	FIN	TOT	Four Beta Loadings			
	α_0	α_1	α_2	α_3	α_4	α_5	α_6	α_7	α_8
Model I	46.12 (2.02)	-0.094 (-0.17)	-0.953 (-0.63)	-0.593 (-0.64)					
Model II	44.98 (2.06)				-0.333 (-1.08)				
Model III	55.64 (2.34)	0.377 (0.74)	-0.901 (-0.66)	-0.794 (-0.94)		-25.94 (-1.99)	0.014 (0.01)	-3.68×10^{-8} (-0.44)	0.077 (0.98)
Model IV	51.73 (2.26)				-0.079 (-0.26)	-25.05 (-1.95)	-0.077 (-0.05)	-3.43×10^{-8} (-0.41)	0.067 (0.86)

Panel E. TTTM.I (Samples: 25)

Estimated Coefficient	Intercept	COM	ENV	FIN	TOT	Four Beta Loadings			
	α_0	α_1	α_2	α_3	α_4	α_5	α_6	α_7	α_8
Model I	82.87 (2.57)	-0.192 (-0.25)	0.077 (0.03)	-2.174** (-1.96)					
Model II	78.38 (2.43)				-0.668 (-1.42)				
Model III	16.24 (0.41)	-1.378* (-1.77)	3.169 (1.46)	-1.104 (-0.91)		76.93 (3.34)	4.788 (0.75)	-3.00×10^{-7} (-0.66)	0.321 (3.05)
Model IV	23.44 (0.63)				-0.659 (-1.10)	65.03 (3.15)	2.330 (0.36)	-2.82×10^{-7} (-0.62)	0.279 (2.70)

From the above results we know that firms with larger efforts in engaging CSR activities are not necessarily positively evaluated by investors. Instead, our above analysis presents evidence that negative response occurred more often. Investors do not support firms with philanthropic ties to the public, because these behavior of firms are not thought to be beneficial to financial healthy of firms, at least from the view point of typical investor. As we use disaggregate measures, we get the results of negative relationship between financial transparency and financial returns. This can be explained by the inefficiency of stock market in Taiwan. Firms with less limpid financial information may probably boom the stock price by bluffing sales.[10] Instead, more well-behaved firms with more transparent financial information do not go in this direction and demonstrate less striking performance in stock returns. The above phenomenon cannot be rationalized by multi-factor models

10. According to Shen (2002), when the products of a company are not sold out, the company sells the products to its subsidiaries, which are not listed in the stock market and hence are not responsible to the public. The fake increase in sale of the mother company stimulates its stock price. The company then uses the high price of stock as collateral to borrow more money from banks. Revenue from the product sale is recorded as "accounts receivable" in the company's balance sheet, but the cash will never come in. The growing sales generate no profit.

for explaining the cross-sectional variation in stock returns.

B. CSR and Long-term Financial Performance

We examine the relationship between CSR ratings and long-term financial performance by collecting financial performance data from 2002 to 2006 for all samples of firms. Measures of financial performance are return on asset, return on equity, earnings per share, stock returns and price earning ratio. The first three are accounting-based measures and the latter two are market-based.

Table 7 presents correlation coefficients between four CSR measures and five-year average financial performance of firms. From the left part of Panel A which all samples are used, we observe a striking result which shows that the correlation coefficients between CSR ratings and ROA, ROE and EPS are positive, but correlation coefficients between CSR and STOCKRET and P/E ratio are negative regardless what CSR measure is used. It means that firms with higher CSR ratings are accompanied by better average long-tern return on asset, return on equity and earnings per share, but worse long-term average stock returns and price earnings ratio. That's firms with better CSR performance have better accounting-based performance but lower market-based performance. Good firms are good in books, but not good investments for investors. From right part of Panel A which firms of traditional industry are used, similar results are obtained. Firms with higher CSR ratings have better long-term accounting-based performance but worse long-term market-based performance.

Table 7. Correlation between CSR and Long-term Financial Performance

Panel A. Samples-All Firms and T.I

Performance Measure	All Firms				T.I			
	COM	ENV	FIN	TOT	COM	ENV	FIN	TOT
ROA	0.165	0.157	0.252	0.237	0.327	0.165	0.245	0.338
ROE	0.118	0.116	0.235	0.190	0.272	0.082	0.196	0.266
EPS	0.196	0.123	0.235	0.245	0.333	0.111	0.225	0.323
STOCKRET	-0.083	-0.016	-0.088	-0.092	-0.134	0.014	-0.163	-0.142
P/E Ratio	-0.066	-0.130	-0.110	-0.114	-0.140	-0.186	-0.117	-0.175

Panel B. Samples-F.I, E.I and TTTM.I

Performance Measure	F.I				E.I				TTTM.I			
	COM	ENV	FIN	TOT	COM	ENV	FIN	TOT	COM	ENV	FIN	TOT
ROA	0.226	0.264	0.326	0.309	0.095	0.140	0.238	0.183	0.115	-0.055	0.474	0.277
ROE	-0.016	0.045	0.457	0.137	0.094	0.148	0.234	0.183	0.106	-0.087	0.343	0.206
EPS	0.317	0.183	0.125	0.296	0.137	0.106	0.235	0.202	0.244	-0.037	0.527	0.395
STOCKRET	-0.063	-0.172	-0.055	-0.093	0.036	0.034	0.119	0.075	0.070	-0.242	-0.012	-0.008
P/E Ratio	-0.283	0.076	0.070	-0.165	-0.022	-0.120	-0.059	-0.065	0.050	-0.233	-0.379	-0.182

Panel B of table 7 presents correlation coefficients between four CSR measures and five-year average financial performance of firms of financial industry, electronics industry and the industry of transportation, tourism, trade and merchant. First, as we observe the left part of panel B of table 7, the correlation coefficients between measures of community participation are positive for ROA and ROE but negative for EPS, STOCKRET and P/E ratio. The correlation coefficients between measures of environmental protection are positive for all accounting-based performance but negative for market-based performance. Similar results are obtained if measure of financial transparency and aggregate CSR measure are used. Second, from the middle part of panel B which firms of electronic industry are used, we observe that

correlation coefficients between CSR and long-term average ROA, ROE, EPS and STOCKRET are positive, but are negative between CSR and P/E ratio regardless what CSR measure is used. Third, from the right part of panel B where firms of industry of transportation, tourism, trade and merchant are used, we observe that if CSR measure is community participation, correlation coefficients between CSR and five long-term financial performance indicators are all positive, but are all negative if environmental protection is used as CSR measure. If financial transparency is used as the CSR measure, correlation coefficients between CSR and long-term accounting-based performance indicators are positive, but correlation coefficients between CSR and long-term market-based performance indicators are negative. Similar results are obtained if aggregate CSR measure is used. Although the results are slight mixed, we get general results that more philanthropic firms have better accounting performance but worse market performance.

According to aggregate CSR measure, we divide firms into five groups on descending order of CSR ratings. As mentioned before, the first group composed of top 20% quantile of samples, the second group composed of 20%-40% quantile of samples. The fifth group composed of bottom 20% quantile of samples. Table 8 reports five year long-term simple average financial performance of five groups of firms. Panel A shows five-year average of return on asset of five groups of firms. From the second column which all firms are used, average ROAs of group I and II are 8.286% and 6.19%, respectively. The average ROA of group V is 1.585%. The difference between group I and group V is 6.7%. Thus, it seems to have descending trend in performance which presents that group of firms with better CSR ratings get higher average returns on asset. As we further do this analysis using different industries, we get similar results. For example, the third

column in panel A, only the firms of traditional firms are used, average ROAs of group I and II are 7.09% and 6.149%, respectively, and the average ROA of group V is 0.981%. The difference between group I and group V is 6.109%. It also show descending trend in performance which presents that group of firms with better CSR ratings get higher average returns on asset. Similar results obtained if only firms in financial Industry, firms in electronic industry and firms in transportation, trade, tourism and merchandise industry are used.

The panel B shows long-term five year average returns on equity of five groups of firms. As all samples of firms are used, as shown in the second column, average ROEs of group I and II are 12.03% and 8.381%, respectively. The average ROE of group V is -3.139%. The difference between group I and group V is 15.17%. Thus, it also shows descending trend in performance which presents that group of firms with better CSR ratings get higher average returns on equity. Similar results are obtained if only firms in traditional, financial, electronics and transportation, trade, tourism and merchandise industries are used. Panel C show familiar results and presents a trend that groups of firms with better CSR ratings got higher long-term average earnings per share. From panel A to panel C we can make a conclusion that firms with better CSR ratings get better accounting-based financial performance.

Panel D in table 8 shows long-term five year simple average stock returns of five groups of firms. As all samples of firms are used, as shown in second column, the trend of higher CSR-lower performance is not obvious. For example, average STOCKRETs of group I and II are 16.83% and 13.54%, respectively. The average STOCKRET of group V is 26.31%. The difference between group I and group V is -9.47%. Similar results are obtained if only firms in traditional, financial, electronics or transportation, trade, tourism and

merchandise industries are used. Panel E is similar to panel D but presents weighted average stock returns of five groups of firms. When all samples of firms are used, average STOCKRETs of group I and II are 21.37% and 16.18%, respectively. The average STOCKRET of group V is 24.09%. The difference between group I and group V is -2.714%. As we use firms in traditional industry, firms in financial industry, firms in electronic industry and firms in transportation, trade, tourism and merchandise industry for analysis, we did not get a clear trend that higher CSR-lower performance is presented.

Panel F show even contrary results relative to panel A to panel C. Average P/E ratio of group I and II are 44.79 and 31.58, respectively. The average STOCKRET of group V is 101.4. The difference between group I and group V is -56.58. Similar results are obtained if only firms in traditional, financial industry, electronics or transportation, trade, tourism and merchandise industries are analyzed. At the same time we can find a slightly different trend which is contrary to the trend obtained from panel A to panel C, that's the group with higher CSR ratings get lower P/E ratio.

From now on, we can make a conclusion that the group of firms with higher CSR ratings tend to have higher returns on assets, returns on equity and earnings per share, but not on stock returns and price earnings ratio. Especially, firms with higher CSR ratings tend to have lower price earnings ratio than firms with lower CSR ratings. This is partially consistent with former results that higher CSR firms have better accounting-based performance but worse market-based performance than firms with lower CSR ratings. Good companies are good in books but not necessarily good investments for investors.

Table 8. Long-term Financial Performance of Firms

Panel A. Performance Measure: ROA

Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	8.286	7.090	5.748	9.193	10.92
Group II	6.190	6.149	1.911	7.640	6.002
Group III	4.769	4.798	1.650	6.392	5.494
Group IV	4.838	3.937	0.222	5.186	0.824
Group V	1.585	0.981	1.524	2.797	2.347
Diff (I and V)	6.700	6.109	4.225	6.396	8.572

Panel B. Performance Measure: ROE

Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	12.03	9.292	7.111	14.11	18.74
Group II	8.381	8.475	0.652	9.662	10.35
Group III	3.061	8.053	1.785	9.109	-10.89
Group IV	4.633	5.059	-28.48	3.438	0.584
Group V	-3.139	-7.033	-3.332	0.384	1.420
Diff (I and V)	15.17	16.33	10.44	13.73	17.32

Panel C. Performance Measure: EPS

Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	2.520	2.077	1.271	3.165	2.964
Group II	1.793	1.437	0.099	2.311	1.708
Group III	1.244	1.222	0.288	1.756	1.099
Group IV	1.410	1.097	0.977	1.678	0.040
Group V	0.500	0.306	-0.176	1.031	0.322
Diff (I and V)	2.020	1.771	1.447	2.134	2.642

Panel D. Performance Measure: Average Yearly Stock Returns (Weighted by Market Cap.)

Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	16.83	33.33	13.49	10.79	33.10
Group II	13.54	32.20	14.67	3.647	20.26
Group III	19.28	26.55	10.84	8.688	47.23
Group IV	19.39	32.16	10.20	9.210	24.61
Group V	26.31	40.79	16.30	12.44	32.62
Diff (I and V)	-9.479	-7.461	-2.815	-1.650	0.475

Panel E. Performance Measure: Average Yearly Stock Returns (Equally Weighted)

Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	21.37	29.81	15.85	13.04	30.20
Group II	16.18	22.60	17.26	10.49	18.54
Group III	19.59	26.89	21.61	9.072	41.89
Group IV	18.18	27.88	17.07	11.06	23.86
Group V	24.09	37.99	18.31	5.789	25.32
Diff (I and V)	-2.714	-8.186	-2.463	7.252	4.874

Panel F. Performance Measure: Average P/E Ratio

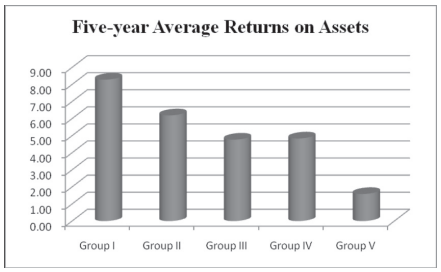
Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	44.79	22.75	96.76	46.98	27.65
Group II	31.58	31.23	119.2	32.73	17.21
Group III	36.78	33.82	17.87	42.62	34.35
Group IV	104.4	111.9	32.40	39.90	576.3
Group V	101.4	47.70	455.7	63.87	123.6
Diff (I and V)	-56.58	-24.96	-359.0	-16.89	-95.98

Figure 1 presents a bar chart of five long-term average financial performance indicators of each group firms. As before, samples of firms are divided into five groups by their aggregate CSR ratings. From A we can find that there exits a descending trend in return on assets from group I to group V.

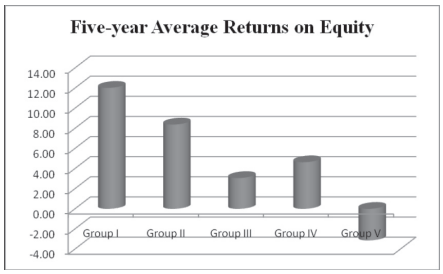
Similar results are obtained for B and C. This means that the group of firms with higher CSR ratings gets better accounting-based performance indicators. But this trend disappeared as we observe diagram D, E and F, which shows stock returns (simple average, weighted average) and price earnings ratio of five groups of firms. Thus, the group of firms do not necessarily get better market-based performance indicators. This is consistent with our former results that Good Companies which engage more efforts in CSR are good in books, but not good investments, firms with corporate social responsibility is not necessarily responsible for investors.

Figure 1. Bar Chart of Long-term Financial Performance of Firms

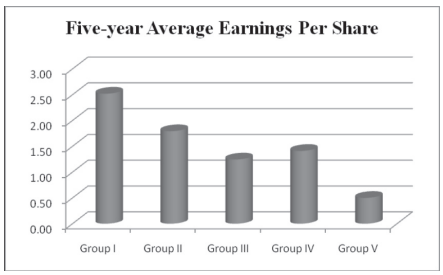
A.ROA



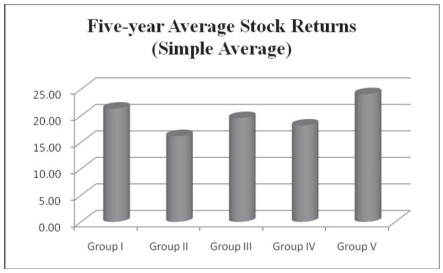
B.ROE



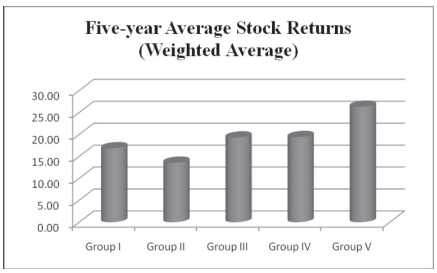
C.EPS



D. Stock Return (Simple Average)



E. Stock Return (Weighted Average)



F. P/E Ratio

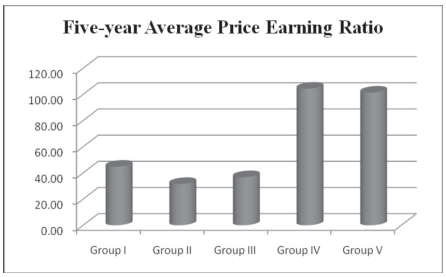


Table 9 reports similar data as table 8 but with the difference of using three disaggregate measures as rankings to divide samples of firms into five groups. For example, the left part of panel A shows long-term five-year average returns on assets of five groups of firms. Firms are grouped according to descending order of community participation ratings. The samples of firms for analysis are five, all samples of firms, firms in traditional industry, firms in financial industry, firms in electronic industry and firms in transportation, tourism, trade and merchandise industry. We can get similar results as before that groups with better CSR ratings (in community participation) have higher five-year average returns on assets. When we observe the middle and right part of panel A, which CSR measures are environmental protection and financial transparency, a similar trend is obtained. For panel B and panel C, although it is not perfect, we still find a trend that group of firms with better CSR ratings get higher returns on equity and earnings per share no matter what CSR ratings are used. But as we observe panel D to panel F, this trend is non-existent. Thus, as before, we get a general result which state that firms with better CSR ratings have higher accountings-based performance indicators but not market-based indicators, and this results is invariant to different measures of CSR.

Table 9. Long-term Financial Performance of Firms (Grouping Firms Based on Three Disaggregated CSR Measures)

Panel A. Performance Measure: Average ROA

Portfolio	COM					ENV					FIN				
	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM
Group I	7.60	6.24	5.75	8.40	10.3	7.42	7.15	5.96	9.04	5.69	8.54	8.57	3.41	10.6	10.9
Group II	5.92	6.40	-0.55	7.85	4.23	5.53	3.29	1.54	5.80	2.30	7.16	4.28	2.63	7.29	9.29
Group III	4.84	5.36	1.65	5.42	-0.05	6.34	6.19	-0.64	8.07	4.90	4.08	4.27	4.09	5.49	2.29
Group IV	4.14	4.89	2.82	5.60	3.78	2.95	4.88	2.59	6.24	11.3	3.50	4.65	1.54	4.80	1.02
Group V	3.19	0.11	1.83	3.88	7.37	3.41	1.43	1.78	2.05	1.38	2.37	1.18	2.35	3.02	2.06
Diff (I and V)	4.41	6.13	3.92	4.53	2.89	4.01	5.73	4.18	6.98	4.32	6.17	7.39	1.05	7.59	8.86

Panel B. Performance Measure: Average ROE

Portfolio	COM					ENV					FIN				
	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM
Group I	10.7	8.01	7.11	13.0	17.4	9.85	9.32	6.34	12.9	8.97	12.4	12.0	3.57	15.9	18.7
Group II	6.24	9.45	-34.5	11.3	6.73	6.40	4.74	-1.48	8.40	-12.7	10.8	6.42	4.46	10.6	13.3
Group III	5.04	8.37	1.79	5.73	-15.6	9.26	9.60	-31.5	10.9	6.51	3.31	5.11	5.60	4.33	-14.2
Group IV	2.42	7.30	6.55	1.64	1.61	-1.95	2.53	5.28	7.48	15.3	3.13	6.79	0.59	5.67	-0.41
Group V	0.57	-9.19	-0.07	4.93	10.2	1.41	-2.64	0.86	-3.07	2.14	-4.69	-6.59	-3.50	0.12	2.78
Diff (I and V)	10.2	17.2	7.19	8.07	7.19	8.44	12.0	5.49	16.0	6.84	17.1	18.6	7.07	15.8	16.0

Panel C. Performance Measure: Average EPS

Portfolio	COM					ENV					FIN				
	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM
Group I	2.36	1.89	1.27	3.00	2.87	2.08	1.96	1.17	2.70	1.41	2.61	2.54	0.66	3.48	2.96
Group II	1.76	1.61	0.20	2.41	0.96	1.61	0.85	-0.06	1.48	0.62	1.99	0.96	0.59	2.26	2.27
Group III	1.23	1.22	0.29	1.46	0.19	1.71	1.53	0.58	2.92	1.11	1.04	0.99	0.95	1.63	0.28
Group IV	1.36	1.46	0.88	1.84	0.63	1.01	1.21	0.69	1.78	2.46	1.00	1.23	0.18	1.41	0.19
Group V	0.75	-0.03	0.19	1.22	1.47	1.04	0.59	0.30	1.05	0.54	0.82	0.42	0.55	1.17	0.42
Diff (I and V)	1.61	1.92	1.08	1.79	1.40	1.04	1.37	0.87	1.65	0.87	1.78	2.12	0.11	2.31	2.54

Panel D. Performance Measure: Average Yearly Stock Returns (Weighted by Market Cap.)

Portfolio	COM					ENV					FIN				
	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM
Group I	15.0	30.4	13.5	9.96	31.0	17.7	34.2	12.2	10.6	17.7	18.0	34.6	17.2	10.5	33.1
Group II	16.2	36.6	12.2	7.06	27.1	10.8	23.8	11.7	3.38	41.8	14.7	27.9	12.1	8.70	23.3
Group III	25.0	29.0	10.8	12.6	37.1	21.1	35.9	16.9	17.6	18.6	15.1	24.7	12.6	10.5	47.8
Group IV	21.2	35.3	15.9	11.0	32.9	15.9	32.8	12.4	7.01	46.0	19.3	30.5	7.30	8.29	29.9
Group V	23.4	35.8	17.4	11.2	31.9	22.4	27.6	16.4	15.3	17.3	24.4	39.2	11.7	5.95	18.4
Diff (I and V)	-8.35	-5.42	-3.93	-1.23	-0.89	-4.75	6.60	-4.22	-4.68	0.40	-6.33	-4.64	5.52	4.58	14.7

Panel E. Performance Measure: Average Yearly Stock Returns (Equally Weighted)

Portfolio	COM					ENV					FIN				
	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM
Group I	18.8	25.7	15.8	12.8	29.8	22.1	32.9	14.7	13.0	17.2	21.5	30.4	19.4	13.4	30.2
Group II	19.6	27.9	14.1	9.16	29.4	15.4	22.9	15.1	7.25	33.3	17.7	24.5	17.6	10.4	29.1
Group III	19.8	26.8	21.6	12.3	24.8	20.9	32.2	21.6	11.4	25.7	16.0	23.2	17.6	7.66	31.2
Group IV	15.1	32.1	20.2	5.77	27.2	19.3	28.5	18.1	12.0	48.2	20.1	29.2	18.6	13.8	23.5
Group V	26.0	32.9	18.7	9.44	28.7	21.7	29.1	21.2	5.78	15.4	24.0	37.8	18.0	4.20	25.9
Diff (I and V)	-7.18	-7.27	-2.85	3.36	1.07	0.34	3.84	-6.51	7.17	1.80	-2.51	-7.46	1.36	9.22	4.34

Panel F. Performance Measure: Average P/E Ratio

Portfolio	COM	ENV	FIN												
	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM	All	T.I	F.I	E.I	TTTM
Group I	46.0	32.3	96.8	43.3	27.9	33.6	38.9	177	32.7	27.1	46.9	22.4	176	36.9	27.6
Group II	63.6	26.3	112	38.1	402	47.5	36.4	360	55.3	35.7	30.4	35.4	50.5	30.4	15.0
Group III	49.1	27.6	17.9	44.7	247	45.2	41.7	13.8	36.6	443	62.8	30.2	17.2	50.6	34.8
Group IV	73.8	111	48.2	50.8	90.4	108	33.3	38.5	19.1	68.9	90.2	98.2	364	67.7	562
Group V	85.2	50.4	366	48.0	47.9	83.3	104	52.9	79.7	225	90.0	62.8	134	40.5	227
Diff (I and V)	-39.2	-18.1	-269	-4.63	-20.0	-49.7	-65.1	124	-47.0	-198	-43.2	-40.4	41.2	-3.61	-200

The idea of the above analysis is to use portfolio comparisons of long-term performance for various groups of firms. Under this framework, if performance indicator is stock returns, then comparing portfolio stock returns should consider risks associated with portfolio returns. Based on above

analysis, we compute Sharpe ratio for each group of firms in order to measure portfolio excess returns per unit of risks of this returns. To compute a five-year average Shape ratio for each group, first we compute one-year Sharpe ratio by subtracting yearly average return by risk-free interest rate for that year, and then divided by the standard deviation of portfolio returns for that year. Second, we compute five-year average by summing one-year Sharpe ratio and divided by five. The larger the Sharpe ratio, the portfolio excess returns which considering risks for that excess return, is larger.

Table 10 shows the Sharpe ratios of five groups of firms. Firms are grouped according to orders of four CSR measures, which are community participation, environmental protection, financial transparency and aggregate measure of CSR which are presented in panel A to panel D in order. For each kind of CSR ranking of firms, samples of analysis are all samples of firms, firms in traditional industry, firms in financial industry, firms in electronic industry, and firms in transportation, tourism, trade and merchandise industry. From the second column of panel A, all firms are included in the analysis, Sharpe ratio are highest in Group I and lowest in Group V. For firms in other industries such as shown in the third to sixth column, although not perfect there exists a slight trend that groups of firms with higher CSR ratings getting larger Sharpe index. Although it is not so obvious, but there exist a similar trend that better CSR-larger Sharpe ratio if we use other three disaggregate CSR measures to rank firms into five groups. Thus, after we consider portfolio risks, good companies can be a good investment.

Table 10. Average Sharpe Ratio of Firms

Panel A. Grouping Firms According to Aggregate Measure of CSR

Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	1.102	1.515	1.942	-3.841	1.400
Group II	0.805	1.201	3.122	-10.21	1.496
Group III	0.988	1.454	1.554	-4.497	1.284
Group IV	0.783	1.372	1.564	-12.35	2.621
Group V	0.766	1.076	2.645	-14.28	1.270
Diff (I and V)	0.336	0.439	-0.704	10.44	0.130

Panel B. Grouping Firms According to C.P Aspect of CSR

Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	1.115	1.342	1.942	-5.004	1.375
Group II	0.923	1.327	2.253	-5.089	3.100
Group III	0.852	1.547	1.554	-9.349	0.694
Group IV	0.606	1.354	2.243	-16.42	1.200
Group V	0.928	0.956	2.644	-9.729	1.727
Diff (I and V)	0.188	0.386	-0.702	4.725	-0.352

Panel C. Grouping Firms According to E.P Aspect of CSR

Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	1.176	1.911	2.399	-1.456	7.346
Group II	0.658	1.199	1.529	-10.01	1.046
Group III	1.052	1.575	1.928	-9.067	2.322
Group IV	0.754	0.982	2.277	-7.900	3.219
Group V	0.780	0.948	1.913	-16.97	0.976
Diff (I and V)	0.396	0.962	0.486	15.51	6.370

Panel D. Grouping Firms According to F.T Aspect of CSR

Portfolio	All Firms	T.I	F.I	E.I	TTTM.I
Group I	1.062	1.557	3.622	-5.067	1.400
Group II	0.948	1.318	2.078	-7.950	1.243
Group III	0.708	1.100	1.505	-11.11	0.912
Group IV	0.889	1.230	1.427	-4.987	1.659
Group V	0.792	1.185	1.776	-16.71	1.966
Diff (I and V)	0.270	0.372	1.845	11.64	-0.567

C. Examining CSR as Insurance Protection of Financial Performance

If we extend to data, which started from 1990 to 2006 for accounting-based performance indicators, and leave the data period of market-based performance indicators unchanged (limited by database), that's 2002 to 2006 for market, then we can examine time trend of performance change for firms. As mentioned before, Peloza (2006) proposed that most of researches related corporate social performance to its financial performance, some examine the influence of firm's CSR activities on consumer satisfaction and purchase intentions [Sen and Bhattacharya (2001)], sales growth [Brown and Dacin (1997)], business image [Fombrun and Shanley (1990)] and employee loyalty. The numbers of studies which examine CSR as an insurance protection of firms are rare. An important yet underemphasized benefit from CSR is insurance against negative events that would otherwise harm financial performance. Although previous researchers conceptualized CSR as a form of "operating license", or simply the actions of the firm that conform to social norms, the potential for CSR to act as an insurance policy that can mitigate the effects of negative events, that's the corporate social responsibility as a role of insurance for financial performance.

Because of data constraint, we can not get precise data about adverse events of specific firms of our samples, thus cannot work toward the direction of analyzing negative specific events on financial performance of firms, such as Blacconiere and Patten (1994). We implement similar analysis by examining time trend of financial performance of five groups of firms in order to check whether different performance in CSR will present different performance during economic downturns. To define macro conditions of economy, we adapt the Monitoring Indicator[11] constructed by the Council for Economic Planning and Development (CEPD) and compare financial performance of Group I and II (defined as high-CSR-firms) versus group IV and V (defined as low-CSR-firms) during 1990 to 2006.

The construct method is illustrated in Table 11. Based on this Monitoring Indicators of CEPD, we get monthly indicators for economic conditions. Averaging 12 month of given year we get yearly monitoring indicators. We define a bad state as a yearly indicator score below 22 and otherwise it is in a good state. Under this definition, the years of bad state are 1990, 1993, 1996, 1998 and 2001, and the years of good state are 1991, 1992, 1994, 1995, 1997, 1999, 2000 and from 2002 to 2006. We want to check whether high-CSR-

11. The monitoring Indicator is constructed by Council for Economic Planning and Development (CEPD) since 1977. Based on nine indicators with high correlation with economic activity (four are about financial sector: money supply M1B, direct & indirect finance, bank clearings & remittance, stock price; five are about real sector: MFGs' new orders (deflated), exports (deflated), industrial production, MFGs' inventory ratio, nonagricultural employment), score of each indicators got 1 point at minimum and 5 point at maximum. Thus, score on composite indicators ranged from 9 to 45 point. The score greater than 38 is marked by overheated, and represented by red light. The score ranged from 32 to 37 is marked by overheated, and represented by yellow-mixed-red light. The score ranged from 23 to 31 is marked by steady, and represented by green light. The score ranged from 17 to 22 is marked by down alert, and represented by yellow-mixed-blue light. The score less than 17 is marked by slowdown, and represented by blue light.

firms outperform low-CSR-firms in years of bad state. If the answer is yes, the evidence supports the view that CSR is financial performance of firms during economic downturns.

Table 11. Check Points of Monitoring Indicators

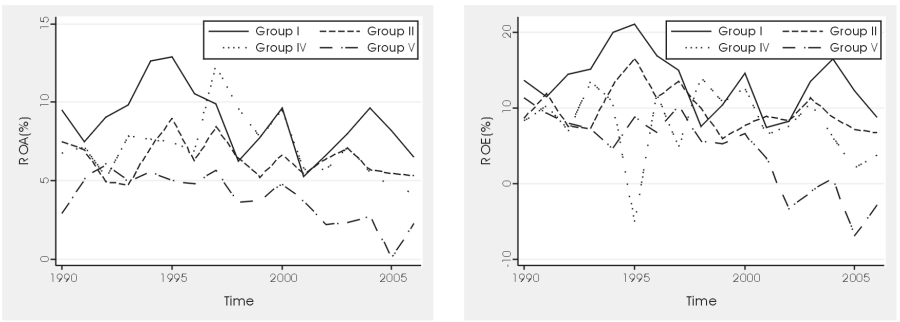
Indicator \ Check Points		Red	Yellow-Red	Green	Yellow-Blue	Blue
		5 point	4 point	3 point	2 point	1 point
Financial Indicators	Money Supply M1B	Percentage change- 12-month span ← 14 — 12 — 6 — 3.5 →				
	Direct & Indirect Finance	Percentage change- 12-month span ← 15 — 13.5 — 10 — 7.5 →				
	Bank Clearings & Remittance	Percentage change- 12-month span ← 23 — 15 — 4 — 0 →				
	Stock Price	Percentage change- 12-month span ← 37 — 20 — 0 — -13 →				
Real Sector Indicators	MFGs' New Orders (Deflated)	Percentage change- 12-month span ← 15 — 11 — 5 — 2 →				
	Exports (Deflated)	Percentage change- 12-month span ← 17 — 12 — 4 — 1 →				
	Industrial Production	Percentage change- 12-month span ← 10.5 — 7.5 — 3 — 0 →				
	MFGs' Inventory Ratio	Ratio of current month ← 53 — 56.5 — 66 — 71 →				
	Nonagricultural Employment	Percentage change- 12-month span ← 2.8 — 2.4 — 1.4 — 0.9 →				
Total Scores		Overheat	Heat Alert	Steady	Down Alert	Slowdown
		45-38	37-32	31-23	22-17	16-9

Figure 2 draws time trend of performance indicators of group I, II, IV and V. We drop group III because we want to compare high-CSR-firms (group I, II) and low-CSR-firms (group IV, V) and exclude those firms in the middle part of the rankings. Part A draws time trend of average ROA of above four groups, ranging from 1990 to 2006, and bad state of the economy is painted

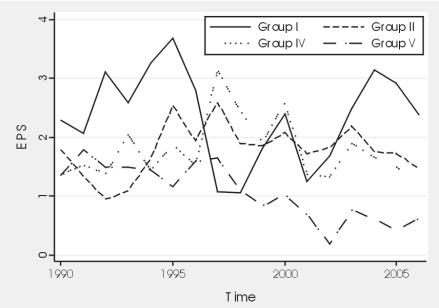
by shaded area. First, ROA for group I is higher than that for group V during data period. Second, during economic downturns, except for 1993, ROA of group I and II are decreasing as group IV and V, thus implies that high-CSR-firms suffer from performance slowdown as low-CSR-firms. Third, the advantage position of ROA for group I disappear in downturns of 1993 and 1996, even lower than that of group IV. Thus, high-CSR-firms do not outperform low-CSR-firms during economic downturns, their ROA will decrease as much as or even larger than low-CSR-firms. This pattern is obtained as we observe diagram B and C, which shows the time trend of ROE and EPS of four groups, respectively. High-CSR-firms do not outperform low-CSR-firms during economic downturns in returns on equity and earnings per share.

Figure 2. Time Trend of Financial Performance of Four Groups of Firms

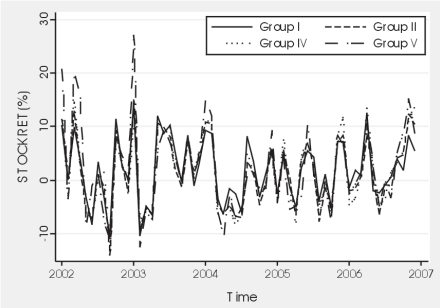
A. ROA **B. ROE**



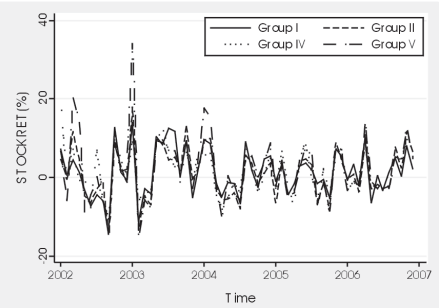
C. EPS



D. Stock Returns (Equally Weighted)



E. Stock Returns (Weighted by Market Cap.)



F. Price Earnings Ratio

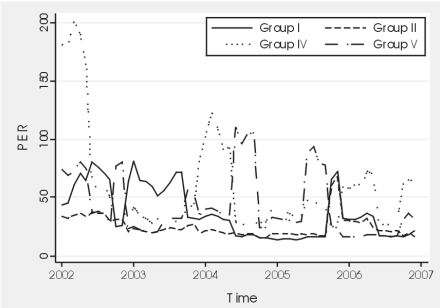


Table 12 reports percentage change (relative to last year) of performance indicators of four groups, group I, II, IV and V. The period of economic downturns (bad state) is marked by shaded area. Panel A reports results of using ROA as performance indicator. We observe that in 1993, relative to 1992, ROA of group I, II, IV and V change 8.02%, -4.60%, 50.2% and -18.8%. It is not clear that high-CSR-firms decrease more in ROA than low-CSR-firms in this year. But as we observe year 1996, relative to 1995, ROA of group I, II, IV and V change -18.4%, -30.4%, -7.70% and -4.74%; in 1998, relative to 1997, percentage changes of ROA for group I, II, IV and V are

-36.9%, -23.6%, -22.1% and -36.3%; in 2001, relative to 2000, percentage changes of ROA for group I, II, IV and V are -45.6%, -18.4%, -39.8% and -23.4%. Thus, relative to low-CSR-firms, high-CSR-firms do not decrease less in ROA, and this means that doing CSR does not guarantee preventing performance slowdowns. Instead, we observe that in 1996, 1998 and 2001, percentage change in performance is greatest in group II, group I and group I. This implies that groups with higher CSR ratings get larger performance decrease in economic downturns. As we observe on panel B and C which the performance indicators are ROE and EPS, respectively. Although the trend is not so obvious, at least we do not get result of better CSR-less decrease in performance. Thus, CSR does not provide insurance for financial performance during stagnations of the economy.

Table 12. Time Trend of Percentage Change of Financail Performance for Four Groups of Firms

Panel A. ROA

Portfolio	Percentage Change Relative to Last Period															
	1991	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Group I	-21.0	20.9	8.02	28.8	2.35	-18.4	-6.38	-36.9	23.6	25.4	-45.6	26.2	21.1	20.3	-15.0	-21.2
Group II	-7.50	-29.0	-4.60	50.4	26.9	-30.4	34.9	-23.6	-19.1	27.8	-18.4	17.6	10.4	-19.1	-4.57	-2.52
Group IV	6.22	-27.1	50.2	-2.27	-2.71	-7.70	79.5	-22.1	-19.3	22.6	-39.8	-0.61	25.9	-22.4	-17.8	-7.44
Group V	77.3	18.8	-18.8	12.8	-10.0	-4.74	19.1	-36.3	3.74	27.8	-23.4	-40.0	6.68	14.4	-97.0	271

Panel B. ROE

Portfolio	Percentage Change Relative to Last Period															
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Group I	-16.6	26.5	4.85	32.3	5.4	-20.3	-11.1	-49.4	36.4	41.8	-49.8	11.3	65.4	21.4	-25.8	-28.2
Group II	36.7	-35.9	-4.24	79.0	27.8	-31.4	18.0	-26.2	-40.2	29.9	14.9	-6.37	36.2	-22.0	-19.3	-5.59
Group IV	24.2	-32.0	93.0	-19.7	-148	-328	-59.2	192	-23.1	17.1	-48.3	16.3	40.0	-42.4	-66.2	81.2
Group V	-18.4	-14.8	-9.20	-35.5	89.2	-22.6	51.9	-45.7	-5.23	23.9	-49.9	-203	-69.2	-159	-1245	-59.8

Panel C. EPS

Portfolio	Percentage Change Relative to Last Period															
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Group I	-10.2	51.7	-17.2	26.4	13.3	-24.4	-61.5	-1.77	70.5	33.4	-47.9	34.7	47.6	26.4	-7.10	-18.7
Group II	-25.6	-29.6	15.8	50.1	55.5	-23.9	34.2	-26.9	-2.32	11.9	-16.8	5.63	20.1	-20.0	-1.49	-15.0
Group IV	12.0	-9.20	48.0	-29.8	30.4	-18.8	107	-22.0	-22.0	34.9	-46.8	-4.01	43.5	-12.4	-10.4	-15.8
Group V	32.7	-16.2	-1.00	-2.70	-19.3	36.5	3.28	-33.0	-24.7	23.6	-32.9	-73.4	312	-19.1	-30.6	46.8

Next, based on the previous classification of high-CSR-firms (group I and group II) and low-CSR-firms (group IV and group V) and separation of macroeconomic condition of good state and bad state, we can get four quadrants for our samples of firms, that are high-CSR-firms in good state, high-CSR-firms in bad state, low-CSR-firms in good state, low-CSR-firms in bad state. By doing this we can observe the performance difference of good state and bad state for high-CSR-firms and low-CSR-firms. If CSR plays a role of insurance of financial performance, we should observe perfornace differnce between high-CSR-firms and low-CSR-firms increase during a good state.

Table 13 reports financial performance of high-CSR-firms and low-CSR-firms in two states of economy. We observe that average ROA of high-CSR-firms is larger than low-CSR-firms by 2.38% and is statistically significant. But this difference is reduce to 1.32% in a bad state, and the statsitical significance is also decrease. We also find that average ROE of high-CSR-firms is larger than low-CSR-firms by 5.56% and is statistically significant and this difference is reduce to 1.93% in a bad state; average EPS of high-CSR-firms is larger than low-CSR-firms by 0.86 and is statistically significant and this difference is reduce to 0.33 in a bad state. This evidence shows that inspite of outperformance of high-CSR-firms in good state, this superioty decreases in bad state. Thus, insurance role of CSR is not supported

by our evidence.

Table 13. Financail Performance of High-CSR versus Low-CSR Firms in Two States of the Economy

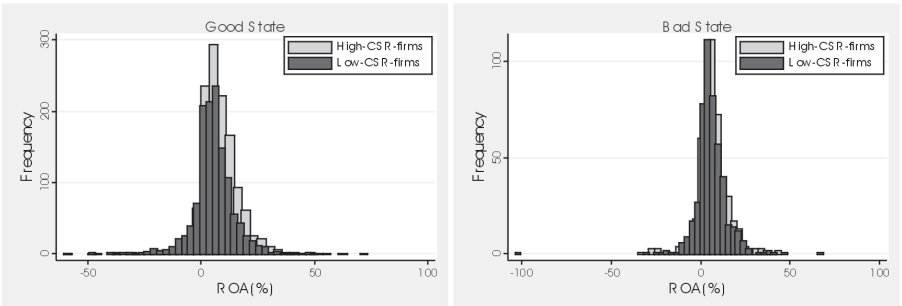
Performance Variable	Statistics	State of Economy (Good)			State of Economy (Bad)		
		Good State High-CSR company	Good State Low-CSR company	Difference in Mean	Bad State High-CSR company	Bad State Low-CSR company	Difference in Mean
ROA	Mean	7.675	5.291	2.384*** (6.37)	6.986	5.669	1.317** (2.15)
	St.dev	9.052	9.870		8.938	9.965	
	Min	-60.85	-60.53		-35.05	-103.8	
	Max	64.06	73.11		44.44	68.17	
	No. obs	1,267	1,295		469	493	
ROE	Mean	11.63	6.073	5.555*** (6.34)	10.50	8.572	1.932* (1.66)
	St.dev	18.83	25.05		18.51	17.57	
	Min	-186.9	-248.2		-100.9	-142.7	
	Max	108.8	118.17		113.6	111.6	
	No. obs	1,272	1,296		471	494	
EPS	Mean	2.229	1.374	0.855*** (7.15)	1.818	1.486	0.333* (1.74)
	St.dev	3.298	2.828		2.876	3.161	
	Min	-17.78	-10.56		-9.280	-13.90	
	Max	40.87	27.59		19.87	34.90	
	No. obs	1297	1335		491	508	

Figure 3 draws histograms of financial performance indicaors of high-CSR-firms and low-CSR-firms. For a given performance indicator, we draws two overlapped histograms of high-CSR-firms and low-CSR-firms for a given state. For example, left part of A diagram plots when economy is in a good state, the distributions of two kinds of firms. The right part of A diagram plots when economy is in a bad state, the distributions of two kinds of firms. As we observe A diagram, although it is not so obvious, we could see that distribution of ROA for high-CSR-firms gets relatively right positions than

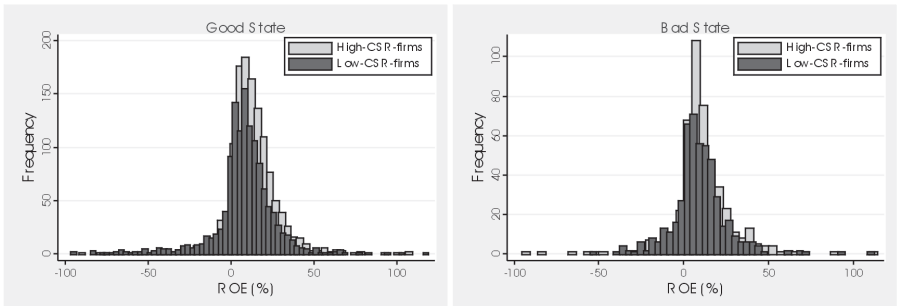
distribution of ROA for low-CSR-firms in good state of the economy, but the position difference between two distribution decrease or nearly overlap in bad state of the economy. This means that in a good state, average ROA of high-CSR-firms is larger, but this superioty decrease in bad state of the economy. As we observe diagram B and C, similar results are obtained.

Figure 3. Histograms of Financail Performance of High-CSR versus Low-CSR Firms in Two States of the Economy

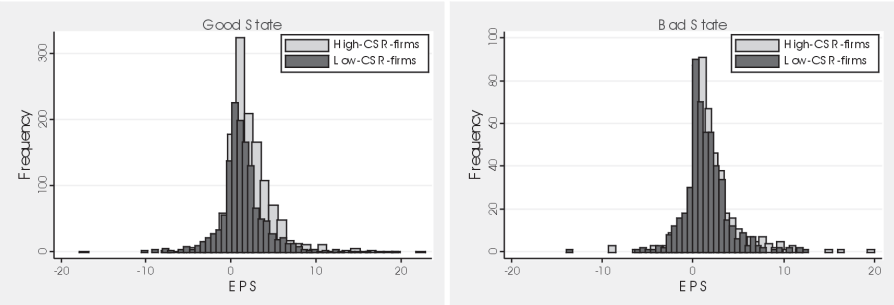
A. ROA



B. ROE



C.EPS



To sum up, most of our evidence do not show supportiveness of high-CSR-firms have even larger performance superioty than low-CSR-firms during bad state on the economy, instead, performance superioty decreases when economy is in the bad state. Thus, our empirical results do not support the view that CSR could act as a role of financial performance insurance of firms duning stagnations.

V. Conclusion

This paper examines the relationship between corporate social responsibility and financial performance of TSE listing companies by using a set of disaggregated social performance indicators (community participation, environmental protection and financial transparency) from the *Global Views Monthly*.

Our empirical results are fivefold. First, scores on composite social performance indicator are negatively related to stock returns and this relationship cannot be rationalized by multi-factor models for explaining the cross-sectional variation in stock returns. Second, the poor market reward offered by such firms is attributable to their good social performance on the

financial transparency and to a lesser extent the community participation and environmental aspects. Thus, for stock returns as performance indicator, this result favors shift of focus hypothesis and against social impact hypothesis. CSR advocates that companies cannot count only on financial performance to survive in this ever-changing scenario of global competition, but also take responsibilities to the various stakeholders in which and where they exist. Although these established practices are prevalent in modern business environment, but based on this study, it is regret that managers have to consider that CSR and profit maximization may be conflicting goals.

Third, the impact of different aspects of social performance on stock returns among industries are diversified which is consistent with Porter and Kramer (2006)'s suggestion that business should not blindly engage themselves in any scope of CSR activities, instead, wise managers have to put a new premium on specific area of CSR issues that most to be beneficial to core business of firm. Speaking in more detail, a firm should devote to a CSR issue which not only have benefits to social but also establish competitive advantage, reach a positive-sum rather than zero-sum game. For example, issue of environmental protection is not the most important concern for pharmaceutical firm. Instead, they can make efforts in development and deterrence of HIV proliferation in Africa. TOYOTA strategically place importance to the issue of planetism. They successfully develop and go on sale of eco-car, the Prius, which using of petrol and electricity hybrid technology and boast nearly 70% fewer smog-forming emissions than the average new vehicle. Nowadays, with the anxiety of radical weather change and exhausting resources, they build up good reputation to the public today and strike root competitive advantage from advanced technology for the future.

Fourth, composite social performance indicator are positively related to long-term accounting performance but negatively related to long-term market performance, and thus implies that good companies are good in books, but not good investments. Finally, high-composite-score firms exhibit a more aggravating decline of their financial performance than low-composite-score firms in stagnations, which is inconsistent with view suggested by Peloza (2006), that CSR is an insurance of financial performance of firms.

Future research could proceed in following directions. First, we find that firms with higher CSR ratings have higher accounting-based performance but lower market performance. Does this means stock market is inefficient, that's good accounting performance does not reflect on market performance? Second, we observe that in figure 3, some earnings measures of performance show evidence of earning management to avoid zero earnings proposed by Burgstahler and Dichev (1997), Degeorge, Patel and Zeckhauser (1999), so it also worth examining whether CSR-firms engage more in earning management activities to try to obtain semblant reputation from the public.

References

Aigner, Dennis. J. 2006. "Corporate Social Responsibility and the Bottom Line", Working Paper, Paul Merage School of Business, University of California, Irvine.

Alexander, Gordon. J. and Rogene. A. Buchholz. 1978. "Corporate Social Performance and Stock Market Performance", *Academy of Management Journal*, vol. 21, no. 3 (September), pp. 479～486.

Anderson, Jeff. and Gary. Smith. 2006. "A Great Company Ban be a Great Investment", *Financial Analysts Journal*, vol. 62, no. 4 (July/August), July/August, pp. 86～93.

Anginer, Deniz., Kenneth. L. Fisher. and Meir. Statman. 2008. "Stocks of Admired Companies and Despised Ones", Working Paper.

Antunovich, Peter., David. Laster. and Scott. Mitnick. 2000. "Are High-Quality Firms also High-Quality Investments?", *Current Issues in Economics and Finance*, vol. 6, no. 1 (January), pp. 1～6.

Aupperle, Kenneth. E., Archie. B. Carroll. and John. D. Hatfield. 1985. "An Empirical Examination of the Relationship between Corporate Social Responsibility and Profitability", *Academy of Management Journal*, vol. 28, no. 2 (June), pp. 446～463.

Barnett, Michael. L. and Robert. M. Salomon. 2002. "Unpacking Social Responsibility: The Curvilinear Relationship between Social and Financial Performance", *Academy of Management Proceedings* SIM: B1.

Bauer, Ron., Kees. Koedijk. and Roger. Otten. 2002. "International Evidence on Ethical Mutual Fund Performance and Investment Style", *Mimeo*. Limburg Institute of Financial Economics, Maastricht University.

Becchetti, Leonardo., Rocco Ciciretti. and Iftekhar. Hasan. 2007. "Corporate Social Responsibility and Shareholder's Value: An Event Study Analysis", Working Paper, Federal Reserve Bank of Atlanta.

Blacconiere, Walter. G. and Dennis. M. Patten. 1994. "Environmental Disclosures, Regulatory Costs, and Changes in Firm Value", *Journal of Accounting and*

Economics, vol. 18, no. 3, pp. 357～377.

Bowman, Edward. H. and Mason. Haire. 1975. "A Strategic Posture toward Corporate Social Responsibility", *California Management Review*, vol. 18, no. 2 (Winter), pp. 49～58.

Bragdon, Joseph H., Jr., and John. A. T. Marlin. 1972. "Is Pollution Profitable?", *Risk Management*, vol. 19, no. 4, pp. 157～169.

Brammer. Stephen, J. and Stephen. Pavelin. 2006. "Corporate Reputation and Social Performance: the Importance of Fit", *Journal of Management Studies*, vol. 43, no. 3 (May), pp. 435～455.

Brammer. Stephen, J., Chris. Brooks. and Stephen. Pavelin. 2006. "Corporate Social Performance and Stock Returns: UK Evidence from Disaggregate Measures", *Financial Management,* vol. 35, no. 3 (Autumn), pp. 97～116.

Brammer. Stephen, J., Chris. Brooks. and Stephen. Pavelin. 2005. "The Stock Performance of America's 100 Best Corporate Citizens", Working Paper, Cass Business School, City University.

Brown, Tom J. and Peter. A. Dacin. 1997. "The Company and the Product: Corporate Associations and Consumer Product Responses", *Journal of Marketing*, 61, (January), pp. 68～84.

Burgstahler, David. and Ilia. Dichev. 1997. "Earnings management to avoid earnings decreases and losses", *Journal of Accounting and Economics*, vol. 24, no. 1 (December), pp. 99～126.

Carhart, Mark M. 1997, "On Persistence in Mutual Fund Performance", *Journal of Finance*, vol. 52, no. 1 (March), pp. 57～82.

Chih, Hsiang. Lin., Chung. Hua. Shen. and Feng. Ching. Kang. 2008. "Corporate Social Responsibility, Investor Protection, and Earnings Management: Some International Evidence", *Journal of Business Ethics*, vol. 79, no. 1～2 (April).

Cochran, Phillip. L. and Robert. A. Wood. 1984. "Corporate Social Responsibility and Financial Performance", *Academy of Management Journal*, vol. 27, no. 1 (March), pp. 42～56.

Cornell, Bradford. and Alan. C. Shapiro. 1987. "Corporate Stakeholder and Corporate Finance", *Financial Management*, vol. 16, no. 1 (Spring), pp. 5～14.

Dam, Lammertjan. 2006. "Corporate Social Responsibility in a General Equilibrium Stock Market Model: Solving the Financial Performance Puzzle", Working paper, Department of Economics, University of Groningen.

Degeorge, Francois., Jayendu. Patel. and Richard. Zeckhauser. 1999. "Earnings management to exceed thresholds", *Journal of Business*, vol. 72, no. 1 (January), pp. 1～33.

Derwall, Jeroen., Nadja. Gunster., Rob. Bauer. and Kees. Koedijk. 2004. "The Eco-Efficiency Premium Puzzle", *Mimeo*. Rotterdam School of Management, Erasmus University.

Fama, Eugene. and Kenneth. French. 1993. "Common Risk Factors in the Returns on Stocks and Bonds", *Journal of Financial Economics*, vol. 33, no. 1 (February), pp. 3～56.

Fogler, Russell. H. and Fred. Nutt. 1975. "A Note on Social Responsibility and Stock Valuation", *Academy of Management Journal*, vol. 18, no. 1 (March), pp. 155～160.

Fombrun, Charles. and Mark. Shanley. 1990. "What's in a Name? Reputation-Building and Corporate Strategy", *Academy of Management Journal*, vol. 33, no. 2 (June), pp. 233～258.

Friedman, Milton. 1970. "The Social Responsibility of Business Is to Increase Its Profits", *The New York Times Magazine*, September 13, pp. 122～126.

Frooman, Jeff. 1997. "Socially Irresponsible and Illegal Behavior and Shareholder Wealth: A Meta-analysis of Event Studies", *Business and Society*, vol. 36, no. 3 (September), pp. 221～249.

Griffin, Jennifer. J. and John. F. Mahon. 1997. "The Corporate Social Performance and Corporate Financial Performance Debate: Twenty-five Years of Incomparable Research", *Business and Society*, vol. 36, no. 1 (March), pp. 5～31.

Guenster, Nadja., Jeroen. Derwall., Rob. Bauer. and Kees, Koedijk. 2006. "The Economic Value of Corporate Eco-Efficiency", *Academy of Management Conference Paper*.

Guerard, John. B. Jr. 1997a. "Is there a Cost to being Socially Responsible?", *Jour-*

nal of Investing 6 pp. 11～18.

Guerard, John. B. Jr. 1997b. "Additional Evidence on the Cost of being Socially Responsible in Investing", *Journal of Investing* vol. 6, no. 2 (Summer), pp. 31～35.

Hamilton, Sally., Hoje. Jo. and Meir. Statman. 1993. "Doing Well While Doling Good? The Investment Performance of Socially Responsible Mutual Funds", *Financial Analysts Journal*, vol. 49, no. 6 (November), pp. 62～66.

Henderson, David. 2002. Misguided Virtue: False Notions of Corporate Social Responsibility. (London: Institute of Economic Affairs.)

Herremans, Irene., Parporn. Akathaporn. and Moriss. McInnes. 1993. "An Investigation of Corporate Social Responsibility Reputation and Economic Performance", *Accounting, Organisations and Society*, vol. 18, no. 7～8 (October-November), pp. 587～604.

Kahn, Ronald. N., Claes. Lekander. and Tom. Leimkuhler 1997, "Just Say No? The Investment Implications of Tobacco Divesture", *Journal of Investing,* vol. 6, no. 4 (Winter), pp. 62～70.

McGuire, J., Alison. Sundgren. and Thomas. Schneeweis. 1988. "Corporate Social Responsibility and Firm Financial Performance", *Academy of Management Journal*, vol. 31, no. 4 (December), pp. 854～872.

McWilliams, Abagail. and Donald. Siegel. 2001. "Corporate Social Responsibility: A theory of the Firm Perspective", *Academy of Management Review*, vol. 26, no. 1 (January), pp. 117～127.

Moore, Geoff. 2001. "Corporate Social and Financial Performance: An Investigation in the U.K. Supermarket Industry", *Journal of Business Ethics*, vol. 34, no. 3～4 (December), pp. 299～315.

Moskowitz, Milton. R. 1972. "Choosing Socially Responsible Stocks", *Business and Society Review*, vol. 1, no. 1 (Spring), pp. 71～75.

Moussavi, Farzad. and Evans. Dorla. 1986. "An Attributional Approach to Measuring Corporate Social Performance", paper presented at the Academy of Management Meetings San Diego, CA.

Nelling, Edward. and Elizabeth. Webb. 2009. "Corprate Social Responsibility and

Financial Performance: The Virtous Circle Revisited", *Review of Quantitative Fonance and Accounting*, vol. 32, no. 2 (February), pp.197～209.

Newgren, K., A. Rasher., M. LaRoe. and M. Szabo. 1985. "Environmental Assessment and Corporate Performance: A Longitudinal Analysis Using Market-Deter-mined Performance Measures", in L. E. Preston (ed.), Research in Corporate Social Performance and Policy (Greeauich: G: JAZ press).

Orlitzky, Marc., Frank. L. Schmidt. and Sara. L. Rynes. 2003. "Corporate Social and Financial Performance: A Meta-Analysis", *Organization Studies*, vol. 24, no. 3 (March), pp. 403～441.

Parket, I. Robert. and. Henry. Eilbirt. 1975. "Social Responsibility: The Underlying Factors", *Business Horizons*, vol. 18, no. 4 (August), pp. 5～10.

Peloza, John. 2006. "Using Corporate Social Responsibility as Insurance for Financial Performance", *California Management Review*, vol. 48, no. 2 (Winter) pp. 52～72.

Porter, Michael. and Mark. Kramer. 2006. "Strategy and Society: The Link between Competitive Advantage and Corporate Social Responsibility", *Harvard Business Review*, vol. 84, no. 12 (December).

Porter, Michael. and van der Linde. C. 1995. "Green and Competitive. Ending the Stalemate", *Harvard Business Review*, vol. 73, no. 5 (September-October), pp. 120～135.

Posnikoff, Judith. F. 1997. "Disinvestment from South Africa: They Did Well by Doing Good", *Contemporary Economic Policy*, vol. 15, no. 1 (January) pp. 76～86.

Preston, Lee. E. and P, O'Bannon. 1997. "The Corporate Social－Financial Performance Relationship", *Business and society*, vol. 36, no 4 (December), pp. 419～429.

Scholtens, Bert. 2005. "Style and Performance of Dutch Socially Responsible Investment Funds", *Journal of Investing*, vol. 14, no l (January), pp. 63～72.

Schroder, Michael. 2004. "The Performance of Socially Responsible Investments: Investments Funds and Indices", *Financial Markets and Portfolio Management*, vol. 18, no 2 (February), pp. 122～142.

Sen, Sankar. and C. Bhattacharya. 2001. "Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility", *Journal of Marketing Research*, vol. 38, no 2 (May), pp. 225～243.

Shefrin, Hersh. and Meir. Statman. 2003. "Style of Investment Expectation", *The Handbook of Equity and Style Management in*, Coggin & Fabozzi eds. (New York: Wiley.)

Shen, Chung. Hua. 2002. "Credit. Rationing for and companies in Bad Years-Eridence from Bank Loan Transaction Data", International Journal of Finance & Economics, vol. 7, no. 3 (July), pp. 261～278.

Soloman, Robert. and Kristine. Hansen. 1985. "It's Good Business", (New York: Althen eum)

Spicer, Barry. H. 1978. "Investors, Corporate Social Performance and Information Disclosure: An Empirical Study", *Accounting Review*, vol. 53, no l (January), pp. 94～111.

Stanley J. Feldman., Peter. A. Soyka. and Paul. Ameer. 1997. "Does Improving a Firm's Environmental Management System and Environmental Performance Result in a Higher Stock Price?", *Journal of Investing,* vol. 6, no. 4 (Winter), pp. 87～97.

Statman, Meir. 2000. "Socially Responsible Mutual Funds", *Financial Analysts Journal*, vol. 56, no. 3 (May), pp. 30～39.

Teoh, Siew Hong., Ivo. Welch. and C. Paul. Wazzan. 1999. "The Effect of Socially Activist Investment Policies on the Financial Markets: Evidence from the South African Boycott", *Journal of Business*, vol. 72, no. 1 (January), pp. 35～89.

Tsoutsourz, Margarita. 2004. "Corporate Social Responsibility and Financial Performance", Applied Financial Project, Berkeley, California.

Turban, Daniel. B. and Daniel. W. Greening. 1997. "Corporate Social Performance and Organizational Attractiveness to Prospective Employees", *Academy of Management Journal*, vol. 40, no. 8 (June), pp. 658～672.

Ullmann, Arieh. 1985. "Data in Search of a Theory: A Critical Examination of the Relationship among Social Performance, Social Disclosure, and Economic

Performance", *Academy of Management Review*, vol. 10, no. 3 (July), pp. 540～577.

Vance, Stanley. 1975. "Are Socially Responsible Firms Good Investment Risks?", *Management Review*, vol. 64, no. 8 (August), pp. 18～24.

Waddock, Sandra. and Samuel. Graves. 1997. "The Corporate Social Performance-Financial Performance Link", *Strategic Management Journal*, vol. 18, no. 4 (April), pp. 303～319.

Walley, Noah. and Bradley. Whitehead. 1994. "It's Not Easy being Green", *Harvard Business Review*, vol. 72, no. 3 (May/June), pp. 2～7.

Werther, William. and David. Chandler 2005, "Strategic Corporate Social Responsibility as Global Brand Insurance", *Business Horizons*, vol. 48, no. 4 (July-May), pp. 317～324.

Wright, Peter. and Stephen. Ferris. 1997. "Agency Conflict and Corporate Strategy: The Effect of Divestment on Corporate Value", *Strategic Management Journal*, vol. 18, no. 1 (January), pp. 77～83.

Corporate Social Responsibility and Financial Performance: Empirical Evidence from Taiwan

Yuan Chang
Assistant professor of the Department of Banking and Finance, Tamkang University, Taiwan

Abstract

Using a set of disaggregated social performance indicators for community participation, environmental protection and financial transparency from the *Global Views Monthly*, this paper examines the relationship between corporate social responsibility (CSR) and financial performance of 312 listing companies of Taiwan Stock Exchange. The main results show that first, scores on composite social performance indicator are negatively related to stock returns and this relationship cannot be rationalized by multi-factor models for explaining the cross-sectional variation in stock returns. Second, the effects of three disaggregated social performance indicators on stock returns are different among industries. Third, aggregated social performance indicator are positively related to long-term accounting performance but negatively related to long-term market performance, and thus implies that good companies are good in books, but not good investments. Finally, firms with high CSR ratings exhibit larger decline of their financial performance and thus does not support the view that CSR is an insurance of financial performance.

Key words: Corporate Social Responsibility, Financial Performance
JEL Classification: G10, G14, M14, M20