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投資者是否對併購案中的企業社會責任公司區別對待？

Do Investors React Differently in M&A Deal for CSR Firms?

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Table of contents

List of tables ..... **II**

Abstract ..... **III**

摘要 ..... **IV**

I. Introduction **1**

II. Literature Review and Hypotheses Development **3**

1. Corporate Social Responsibility (CSR) 3

2. Merger and Acquisition (M&A) 5

3. Hypothesis 7

Hypothesis 1 7

Hypothesis 2 7

III. Data **8**

IV. Methodology **10**

1. Short-run Announcement Stock Performance 10

2. Long-run Stock Performance 12

3. Cross-section Analysis 13

V. Results **16**

1. Short-run Announcement Stock Performance 16

2. Long-run Stock Performance 18

3. Cross-section Analysis 19

VI. Conclusions **21**

References **22**

List of tables

Table 1 Distribution of Acquisition Bidders, 1991-2010 (Full Sample with 4527 Observations)..... **25**

Table 2 Descriptive Statistics of Bidders' Size Characteristics, 1991-2010 (Full Sample with 4527 Observations)..... **26**

Table 3 Descriptive Statistics of Bidders' Size Characteristics, 1991-2010 (Matching Samples) **27**

Table 4 Announcing Returns of Acquisition Bidders, 1991-2010 (Matching Samples) **28**

Table 5 Announcing Returns of Acquisition Bidders of Subsamples for Window (-1,+1), 1991-2010 (Matching Samples) **29**

Table 6 Long-term (three-year) Stock Performance using Control-firm Adjusted Returns, 1991-2008 (Matching Samples)..... **31**

Table 7 Long-term (three-year) Performance of Abnormal Stock Returns measured by the Fama and French Three-factor Model and Carhart Four-factor Model (Value-Weighted), 1991-2008 (Matching Samples) **32**

Table 8 Regression Results for Bidder Announcing Returns for Window (-1,+1)..... **33**

Table 9 Regression Results for Bidder Announcing Returns for Window (-3,+1)..... **34**

Table 10 Regression Results for Bidder Announcing Returns for Window (-20,+1).... **35**

Table 11 Collinearity Test..... **36**

Abstract

The corporate social responsibility (CSR) firms may have multiple objectives to satisfy different stakeholders, however the purpose of merger and acquisition (M&A) is to maximize the firm value. Since the impact of CSR's multi-task nature on bidder's M&A activities is still overlooked and no empirical results have revealed an explicit relationship between these two issues, we examine whether engagement of CSR affect bidding firm's profitability in M&A deals. Our result suggests that being identified as CSR firms, the acquirers will experience significantly higher abnormal return during the announcement period, while in the long run, they underperform non-CSR acquirers insignificantly. The short-run result supports our hypothesis that CSR engagement can function as an "insurance" signal, but for the long-run result, it seems to deserve more discussion on the CSR bidders' long-run performance post M&A.

Keywords: Corporate Social Responsibility, Merger and Acquisitions, Announcement Period Return

摘要

履行企業社會責任的公司要求經理人追求多重目標以滿足不同的利益關係人的要求，但公司進行併購活動的目的往往是爲了使公司價值實現最大化。由於企業社會責任公司的多重目標對於併購績效的影響尚未可知，亦無文獻探討過履行企業社會責任與併購績效之間的關係，所以本文檢驗了履行企業社會責任是否會影響主併公司短期宣告效果及長期股價績效。實證結果顯示，企業社會責任公司在宣告期間可以獲得顯著更高的股價報酬；但在長期之後其股價表現則不顯著地低於非企業社會責任公司。短期實證結果支持了本文假說，即履行企業社會責任確實可以充當一個“保險信號”的角色，為主併公司獲取更多利潤；但在主併公司的長期並購績效方面，還需做進一步的探討。

關鍵詞: 企業社會責任, 併購, 宣告效果

I. Introduction

With the trend of globalization and enterprises' internationalization, merger and acquisition (M&A) has experienced a dramatic growth in the whole 20th century. Firms use merger and acquisition to expand their scope, market share and gain profits from synergy effect and more convenient management, hence achieve the ultimate goal to increase shareholder's value. However, firms fulfilling Corporate Social Responsibility (CSR) consider various stakeholders' interest simultaneously and pursue multiple objectives besides financial performance, thus this principle may have potential negative effects on shareholder value (Renneboog, Horst and Zhang (2008)). On the other hand, the purpose of M&A is to maximize their firm value. It appears that the value-maximization purpose in M&A contradicts the CSR's multi-task which may destroy firm value due to agency problems (Renneboog et al. (2008); Jensen (2001)), and the impact of CSR's multi-task on M&A performance is still overlooked and needs further research.

Definitions of CSR remains contentious but generally refers to serving people, communities, and the environment in ways that go above and beyond what is legally required of them (Barnea and Rubin, (2010)). As numerous firms engaging in CSR activities around the world, it incentives us to make a thorough inquiry about what the impact of their engagement in CSR will cause on M&A activities. Ciambotti, Aureli and Demartini (2011) has invoked that CSR engagement should be applied into M&A, since the cross-border acquisition will lead to job losses and other negative effects in the target's local economy. They argue that foreign acquirer should carry a commitment to

regional economic and social development because they share common values and develop informal relationships (so-called "social capital").

Considering the relationship between CSR and corporate financial performance (CFP) still controversial (positive: McGuire, Schneeweiss and Sundgren (1988); negative: Marcus and Goodman (1986); no relationship: Aupperle, Carroll, and Hatfield (1985)) and the influence of CSR on M&A remains largely open, this paper aims to examine to what extent CSR can influence M&A performance. What concerns us most is whether the market reacts differently to those firms accredited with CSR in M&A, and whether CSR is a really valuable tool to help firms gain more potential profits in the long run than non-CSR firms. In other words, we wish to know whether CSR firms perform better than non-CSR firms in M&A activities.

Using Morgan Stanley Capital International Index (MSCI KLD 400 social index) as our CSR measurement, we examine bidding firms' both short-run and long-run abnormal returns in M&A deals to gain a better understanding of the impact of CSR on M&As. Our research design allows us to control for some variables which has been proved affecting the acquirer's return, and focus on our core influencing factor, firm's participation in CSR, to examine its impact on acquirer's return in M&A activities. We find that in the short-run, CSR bidders outperform non-CSR bidders by 3.67% for window (-1,+1), by 3.69% for window (-3,+1), and by 4.79% for window (-20,+1). These results support our hypothesis 1 and suggest that the market really react better when the bidding firm is labeled as CSR. However, there's a reversion in the long-run stock performance. Results show that CSR bidders underperform non-CSR bidders insignificantly by -12.98% for 1year, by -13.46% for 2 year, but outperform non-CSR bidders insignificantly by 7.34% for 3 year.

To the best of our knowledge, only few researches studied in the linkage between

CSR and M&A, and this field still remains largely open. In Morgan (2009)'s study, they use KLD Research Analytics and SDC Platinum Database to test if CSR scores affect a firm's propensity to pursue M&A activity. Compare to Morgan (2009)'s focus on how CSR being incorporated into M&A decision makings, we concern more about the CSR's influence on participants' stock performance in M&As. We conclude that adopting CSR does help firms gain more during M&A announcement periods, but leave space for future research owing to the mixed results of the bidders' long-run performance.

The rest section is as follows. Section II discusses the literature and the hypotheses. Section III describes the data. Section IV presents the methodology. Section V presents the results of the short-run and long-run stock return and cross-sectional regressions. Section VI concludes the paper.

II. Literature Review and Hypotheses Development

1. Corporate Social Responsibility (CSR)

Debates on whether a firm should adopt CSR and whether CSR will generate more profits have been ongoing for a long period. From the perspective of reducing costs, Cornell and Shapiro (1987) argue that the value of a firm depends on not only explicit costs of shareholders but also implicit costs of stakeholders. If firms act socially irresponsibly, their implicit costs will increase, hence they bear more costs overall. In Tsoutsoura (2004)'s study, he argues that although adopting CSR firms involves costs, it should generate benefits as well in order to be sustainable, since a corporation will not continue the CSR policy if it generates negative cash flows.

Besides, scholars find that CSR firms are likely to have better reputations and they are generally regarded as symbol of reliability. An increase in perceived social responsibility may improve a firm's reputation and permit it to exchange costly explicit claims for less costly implicit charges. (McGuire, Sundgren and Schneeweis (1998); Robinson, Kleffner and Bertels (2008)). Minor and Morgan (2011) suggest that CSR acts as a powerful form of reputation insurance when a firm suffers an adverse event. In their study, they find the positive relationship between a firm's CSR rating and its stock price. Godfrey, Merrill and Hansen (2009) also find similar "insurance-like" effect in CSR firms. They extend the risk management model and find that participation in institutional CSR activities---those aimed at a firm's stakeholders or society at large---provides an "insurance-like" benefit. CSR has also been proved to reduce information asymmetry. Cui, Jo, and Na (2012) use the U.S. sample during 1991-2010 to investigate the relationship between CSR engagement and the level of information asymmetry, and find that results reject the agency-theory based over-investment hypothesis (Barnea and Rubin (2010)) but support CSR engagement a vehicle to reduce asymmetric information between managers and non-investing stakeholders.

Contrary to those supporting CSR as a beneficial tool for firms to gain more profits, some scholars propose the opposite view. According to Freeman (1984)'s stakeholder theory and (Cornell and Shapiro, 1987)'s arguement, CSR firms should not only serve their owners to realize value-maximizing but also stakeholders in order to get potential value in the future. However, the interests between various stakeholders used to be conflict. Barnea and Rubin (2010) find that insiders (managers and large blockholders) who are affiliated with the firm may want to over-invest in CSR for their private benefit since it improves their reputation as being good global citizens. Renneboog et al. (2008) state that socially responsible investments (SRI) portfolio managers pursue both

financial goals and social objectives, and this multi-task nature of SRI may weaken fund managers' incentives to purse high risk-adjusted returns and hence increase potential agency costs. Jensen (2001) also argues that the stakeholder theory increases the agency costs and weakens the internal control systems of firms, since performance measures are only vaguely defined.

On the issue of relationship between CSR and CFP, empirical results have long been mixed in both short-run and long-run performance. For short-run abnormal returns, Posnikoff (1997) detects a positive linkage between CSR and CFP; Wright and Ferris (1997) find a negative relation; while Teoh, Welch and Wazzan (1999) find no significant relationship. For long-run performance, some studies have found a positive link between them (McGuire, Schneeweiss and Sundgren (1988); Waddock, Graves (1997)). In contrast, Marcus and Goodman (1986) and Lerner and Fryxell (1988) find a negative correlation. Additionally, Aupperle, Carroll, and Hatfield (1985) find no significant relation between CSR and long-run CFP.

2. Merger and Acquisition (M&A)

It is generally accepted that merger and acquisition can create synergy effects because of resource sharing and integration. Hietala, Kaplan and Robinson (2001) note that the merger announcement reveals potential synergies, the stand-alone values of the bidders and targets, and the bidder overpayment. However, the bidder stock's performance is still a puzzle and numerous researches have examined the wealth effect on bidders in merger and acquisitions. Jensen (1986) argues that since managers' compensation and perquisites are directly tied to the size and the scope of the firm, self-interested managers, if left unmonitored, will have the propensity to increase firm

size through acquisitions, although such investments may destroy shareholder value. Hietala et al. (2001) find that winner of the takeover battle overpay by $2 billion and its stock price performances poorly in the three years following the acquisition. This result has some similarity with Roll (1986)'s hubris argue. Brau, Couch, and Sutton (2012)) analyze 3,547 initial public offerings (IPOs) and find that IPO long-run underperformance is related to managers' overconfidence, investors' overoptimistic, and the desire to acquire. However, Franks, Harris, and Titman (1991) find no evidence supporting bidder's significant underperformance over three years post M&A. They state that previous findings of bidder underperformance are due to benchmark errors rather than mispricing in the takeover.

Furthermore, some studies examine bidders' announcement period returns. Chang (1998) find that using stock payment, bidders gain a significant positive abnormal return in contrast to their negative abnormal return when buying public traded targets and bidders did not gain by using cash payment. Fuller, Netter and Stegemoller (2002) also find similar results that bidders experience significantly negative returns when buying public targets, and significantly positive returns buying private or subsidiary targets. Faccio, McConnell, and Stolin (2006) find that acquisitions of unlisted targets will earn a significantly positive announcing abnormal return. Andrade, Mitchell, and Stafford (2001)'s also find positive announcing returns for acquirers. In general, like Andrade et al. (2001) mention, bidders do not necessary lose in M&As.

Overall, empirical results for bidders' stock performance post M&A is still mixed. Most researches find bidders lose for long run while others argue that bidders do not necessary lose.

In addition, the signaling theory has been accepted by the public and put into practice in M&A for a long period. Reuer, Tong and Wu (2012) find that engaging in

inter-organizational relationships can function as signals and gain a higher acquisition premium in post-IPO M&A.

3. Hypothesis

Motivated by the mixed results of relationship between CSR and CFP, additionally no research has studied this relationship in M&A events, we test the relationship between CSR bidders and both their short-run and long-run stock abnormal return to investigate the impact of CSR's implementation on their M&A activities in our study.

For bidders' short-run stock performance, since signaling theory has been applied in the M&A activities for a long time, we assume that CSR can also function as a signal due to their better reputation(McGuire et al. (1998); Robinson et al. (2008)) and insurance effect(Godfrey et al. (2009)). Thus, we hypothesize the following:

Hypothesis 1 CSR bidders will experience more positive stock performance than non-CSR bidders during announcement period.

For bidders' long-run stock performance, based on Roll (1986)'s hubris hypothesis, Barnea and Rubin (2010)'s self-interested hypothesis and agency hypothesis, we expect the bidding firms' managers will be overconfidence and overpay when buying targets and the market will overreact during announcement period owing to bidding firm managers' overconfidence and investors' over optimism, while in the long run, the managers' self-interest behaviors and value-destroyed acquisitions will reflect on the poor performance. Thus we expect the following:

Hypothesis 2 CSR bidders will underperform non-CSR bidders in the long run.

III. Data

The data of mergers is collected from Securities Data Corporation's (SDC) U.S. Mergers and Acquisitions (M&A). We choose 40857 M&A events whose bidders are traded on the NYSE, AMEX and NASDAQ over the period of 1991/01/01 to 2010/12/31. Further we delimit the sample with the following conditions:

1. To avoid double counting the long-run stock returns, multiple takeovers within 3 years by the same acquirer should be excluded from the sample.

2. Acquirers and targets' relevant stock market data should be covered by the Center for Research in Security Prices (CRSP).

3. CSR firms are covered by the Morgan Stanley Capital International Index (MSCI KLD 400 social index).

In order to get the sample as large as possible, we use the acquirer's book value as a proxy for its firm size if we can't find the market value, and use the deal value or the target's book value as a proxy for its firm size. After these cut steps above, there are 4,527 acquisitions left in the whole sample, where 99 acquisitions are announced by CSR firms and 4,428 acquisitions by non-CSR firms.

Because our main concern is the effect of CSR on acquirer's performance post M&A, we should retain the sample as large as possible. Since we sacrifice a lot of observations for the targets' firm size (lots of targets are private and have no market values), we also present results of another sample (with total 6,050 observations, including 145 CSR firms and 5,905 non-CSR firms), in which the CSR firms are maintained as much as possible while targets' size are missing. In this study, the results described in our text are dominated by the matching sample with total 4,527 observations, for the reason that all variables have their values.

Table 1 shows a breakdown of the sample of M&As by year. We report by year (1991-2010) the number of M&A events, aggregate deal value, and mean deal value. The year where M&As happen most frequently is 1996 with 361 events, and the year where M&As happen least is 2010 with 129 events. Observation of CSR firms adopting M&A deals is much lower than non-CSR firms, though their mean deal value is greater than non-CSR firms, especially in 2005 with 2,111.38 million mean deal value for only 5 CSR bidding firms.

Table 2 reports the summary statistics of the firm characteristics for the full sample by both CSR firms and non-CSR firms. In this table, we define the free cash flow as OANCF-CAPX-DV, where OANCF is cash from operating activities, CAPX is capital expenditures, and DV is cash dividend. From the whole sample, we can see that CSR firms seem to be in a much larger scale than non-CSR firms. The mean total asset of CSR firms is 2,410.38 million while non-CSR firms' is 585.25 million. The mean book value is 1,100.16 for CSR firms versus 161.14 for non-CSR firms. The mean market value is 4,155.62 for CSR firms versus 482.94 for non-CSR firms. Noting the deal value for CSR firms in Table 1 seems to have large fluctuations, we test the difference of deal value between CSR and non-CSR firms and find it significant (mean: 292.50; t-value:11.08).

Moreover, since we use variables B/M ratio and relative size (target-to-bidder's firm size) in our subsequent analysis, we wish to know these variables' statistic descriptions deeply. The mean value of B/M ratio is 0.61, 0.42 and 0.61 in our full sample, CSR sample and non-CSR sample respectively; and the mean value of relative size is 0.60, 0.56 and 0.60, respectively. For CSR bidders, B/M ratio seem to be lower and the relative size seem to be larger than common bidders. As (Rau and Vermaelen (1997)) argue, glamour firms (those with low B/M ratio) underperform value acquirers

(those with high B/M ratio) in the long run. We control these two variables in our subsequent regression analysis.

Table 3 reports the summary statistics of the firm characteristics for the "matching sample" by both CSR firms and non-CSR firms. The matching sample includes 84 CSR bidders and 84 non-CSR peers, and each market value of non-CSR peers is between the range of 70% to 130% of the corresponding CSR firm's market value. The total assets, book value, market value and free cash flow of the bidding firms reveal no significant difference between CSR and non-CSR firms, but the relative size is significantly larger for CSR bidders than for non-CSR bidders (mean: 0.16; t-value: 2.07). Although not reported in Table 3, we still test the difference of the deal value within CSR and non-CSR bidders and find no significance difference (mean: 99.31; t-value: 1.01). This finding rules out the possibility that there're difference between the deal values between CSR bidders and their non-CSR peers.

IV. Methodology

1. Short-run Announcement Stock Performance

To test the market reaction to the merger announcement event, we define window (0,0) as the announcing date and follow the previous research's event study methodology to use the Fama and French (1993) three-factor model for window (-1,-1) (0,0) (+1,+1) (-1,+1) (-3,+1), to capture the immediate reaction to the acquisition. The model is:

$$R_{jt} = \alpha + \beta_j R_{mt} + s_j SMB_t + h_j HML_t + \varepsilon_{jt},, \quad (1)$$

where R_{jt} is the stock return of the j^{th} firm on day t; R_{mt} is the stock return of a market index on day t; SMB_t is the average small market-capitalization portfolios' return minus the average three large market-capitalization portfolios' return; HML_t is the average two high book-to-market equity portfolios' return minus the average two low book-to-market equity portfolios' return; ε_{jt} is a random variable which is expected to be zero, and is assumed to be uncorrelated with R_{mt}, uncorrelated with R_{kt} for $k \neq j$, not autocorrelated, and homoskedastic. β_j is a parameter that measures the sensitivity of R_{jt} to the market index's excess return; s_j measures the sensitivity of R_{jt} to the difference between small and large capitalization's stock returns; and h_j measures the sensitivity of R_{jt} to the difference between value and growth firm's stock returns. The estimation period is from 20 days pre the announcement to 250 days post the announcement. We define the *abnormal return* for the stock return of the j^{th} firm on day t as:

$$AR_{jt} = R_{jt} - (\widehat{\alpha_j} + \widehat{\beta_j} R_{mt} + \widehat{s_j} SMB_t + \widehat{h_j} HML_t), \quad (2)$$

where $\widehat{\alpha_j}$, $\widehat{\beta_j}$, $\widehat{s_j}$ and $\widehat{h_j}$ are estimations of ordinary least squares of α_j, β_j, s_j and h_j.

To test the market reaction to the merger announcement event, we follow the previous research's event study methodology to use the cumulative average abnormal returns (CAAR) for the (-1,+1) (-3,+1) (-20,+1) announcement period, to capture the immediate reaction to the acquisition. The average abnormal return (*AAR*) in day t is:

$$AAR_t = \frac{1}{N} \sum_{j=1}^{N} AR_j \quad (3)$$

where N is the number of bidding firms. The cumulative abnormal return (CAR) is defined as following:

$$CAR = \sum_{t=a}^{b} AAR_t \quad (4)$$

where t=0 is defined as the announcement day.

2. Long-run Stock Performance

We use cumulative abnormal returns (CAR) and buy-and-hold abnormal returns (BHAR) as our models to test the long-run (1, 2, 3-year) stock price of the bidding firms. The BHAR model is:

$$BHAR_T = \frac{1}{N}\sum_{i=1}^{N}[\prod_{t=0}^{T}(1 + R_{i,t}) - \prod_{t=0}^{T}(1 + R_{benchmark,t})] \quad (5)$$

where $R_{i,t}$ is the monthly raw return for bidding firm i in month t, and $R_{benchmark}$ is the matching non-CSR firms' monthly raw return for month t.

For the purpose of caution, we also provide long-run performance results using Fama and French three-factor model and Carhart four-factor model in the subsequent tables. The Fama and French three-factor model is:

$$R_{p,t} - R_{ft} = \alpha_p + \beta_p (R_{mt} - R_{ft}) + s_p SMB_t + h_p HML_t + \varepsilon_{p,t}, \quad (6)$$

where $R_{p,t}$ is the portfolio p's return in month t; R_{ft} is the one-month T-bills's return in month t; R_{mt} is the market index's return in month t; SMB_t is the difference in the returns on a portfolio of small and big stocks in month t; and HML_t is the difference between portfolios of high to low book-to-market stocks in terms of the returns accrued in month t and $\varepsilon_{p,t}$ is the error term for portfolio p in month t.

The Carhart four-factor model is:

$$R_{p,t} - R_{ft} = \alpha_p + \beta_p (R_{mt} - R_{ft}) + s_p SMB_t + h_p HML_t + p_p PR1YR_t + \varepsilon_{p,t}, \quad (7)$$

where $R_{p,t}$, R_{ft}, R_{mt}, SMB_t, HML_t and $\varepsilon_{p,t}$ are defined as in the Fama and French three-factor model, $PR1YR_t$ is the difference in the returns of a portfolio of prior-year high return stocks and prior-year low return stocks in month t.

3. Cross-section Analysis

The regression model is set up to test the degree to which CSR will affect the bidder's abnormal returns. We select firm characteristics and factors which have been proved affecting acquirer's stock performance as control variables, and create the CSR dummy as our key dependent variable to form the regression model. Noting the variance between CSR and non-CSR firms' characteristics, we use bidder's market value as a proxy to control for firm size in our regression model. In addition, there are many factors which have been identified to influence bidder's stock return (bidders' B/M ratio, target to bidder's relative size, diversifying acquisition, target's public status and payment method) and we use these factors as our control variables. The regression model's variables are defined as follows:

Dependent variable

Acquirer return

We use the bidders' cumulative abnormal return (CAR) during the (-1,+1) (-3,+1) (-20,+1) announcement period, as our dependent variable. The bidders' CAR is calculated as in equation (1)-(4).

Independent variables

CSR dummy

To test whether CSR bidders outperform non-CSR bidders, we create a dummy variable *CSR dummy*, as our main concern. The CSR dummy equals 1 if a bidder is covered by the MSCI KLD 400 social index, else equals 0.

Firm Size

We use log of a bidder's market value as a proxy for its firm size.

B/M Ratio

Raghavendra Rau and Vermaelen (1998) claim that bidders with low B/M ratio lose significantly by 22.8% while high B/M ratio bidders win significantly by 14.45%. Those low-B/M ratio-firms are often called 'glamour firms' and tend to overpay in M&As (Shleifer and Vishny (2003); Brau et al. (2012)). In this study, we define *B/M Ratio* as log of the ratio of bidder's book value to their market value.

Relative Size

Kooli, Kortas and L'Her (2003) state that greater relative size provides the target firm greater bargaining power. If such is the case, the target size relative to acquirer size is bigger, the acquirer will capture less profit. Kusewitt, JR (1985) also find similar results suggesting that relative size is negatively related to acquirer's performance. We define *Relative Size* as the target's market value divided by the acquirer's market value. Following Rosen (2006)'s research, for those targets whose market value are missing, we use the price paid in the acquisition as a proxy for it. If the price paid still can't be found, we use the target's book value to calculate its firm size.

Diversifying acquisition

Jensen (1986) has claimed that diversified mergers are less likely to succeed since acquiring firms are not familiar with the target industry. In Agrawal, Jeffe and Mandelker (1992)'s paper, they find that acquirer in non-diversifying acquisitions will suffer worse underperformance than diversifying acquisitions, which is contrast with popular belief. In this study, we compare the acquirer and target's first two digit of the 4-digit SIC code reported by SDC to measure whether an acquisition is a diversifying acquisition. If bidder and target's first two digit SIC codes are different, then we define

the event as a diversify acquisition since bidder and target are in different industries. The dummy variable *Diversify* equals 1 if the acquirer firm is in different industry with the target firm, else equals 0.

Target Public Status

It has been proved that bidders have positive returns when buying private or subsidiary firms, and significantly negative returns when buying public firms, since the acquirer will argue more liquidity discount for the private firms' lack of liquidity and difficulty to know the value (Fuller et al. (2002); Chang (1998)). In this study, we category the target's public status into three dummy variables: *Public Target, Private Target and Subsidiary Target*, where *Public Target* is the dummy variable that equals 1 if the target firm is public, otherwise equals 0; *Private Target* is the dummy variable that equals 1 if the target firm is private, otherwise equals 0; and *Subsidiary Target* is the dummy variable that equals 1 if the target firm is a subsidiary firm, otherwise equals 0.

Payment Method

In Fuller et al. (2002)'s study, they find evidence on the payment method affecting acquirer's return. Their result demonstrates that for public targets, acquirer will have significantly negative returns when they use stock as payment method, while for private firms, acquirer will have higher returns for stock offers relative to cash offers. If a bidder use cash 100% to buy a target firm, then we define its payment method as Cash payment which equals 1, else equals 0. If a bidder acquirers a target firm all by stock, we define its payment method as *Stock Payment* which equals 1, else equals 0. If a bidder uses combination of the two, we regard its payment method as *Mix Payment*, which equals 1, else equals 0.

Finally we incorporate variables mentioned above, to build the final regression model. The model is:

$$Acquirer\ return_{i,t} = \beta_{0i,t} + \beta_1\ CSR_{i,t} + \beta_2\ log\ of\ Firm\ Size_{i,t} + \beta_3\ log\ of\ B/M\ Ratio_{i,t} + \beta_4\ Relative\ Size_{i,t} + \beta_5\ Diversifying_{i,t} + \beta_6\ Public\ Target_{i,t} + \beta_7\ Subsidiary\ Target_{i,t} + \beta_8\ Stock\ Payment_{i,t} + \beta_9\ Mix\ Payment_{i,t} + \varepsilon_{i,t}, \quad (8)$$

where *i* is the bidding firm *i* and *t* is the announcement period *t*.

V. Results

1. Short-run Announcement Stock Performance

Table 4 reports the cumulative abnormal returns of the full sample of the acquiring firms around the announcing day. For all the windows (-1,-1) (0,0) (+1,+1) (-1,+1) (-3,+1) (-20,+1), CSR bidders outperform non-CSR firms. For CSR firms, the CARs are significantly positive for window (0,0) (+1,+1) (-1,+1) (-3,+1), insignificantly positive for window (-1,-1) (-20,+1). For non-CSR firms, the CARs are significantly negative for window (-1,-1), insignificantly negative for window (+1,+1) (-1,+1) (-3,+1) (-20,+1) and insignificantly positive for window (0,0). This result corresponds to Fuller et al. (2002)'s statement that on average, bidders in merger and acquisition's announcement gain a zero abnormal return, and acquirers do not lose necessarily (Andrade et al. (2001)). It is noteworthy that CSR firms outperform non-CSR firms significantly by 1.97% for window (+1,+1) , 3.67% for window (-1,+1), 3.69% for window (-3,+1) and 4.79% for window (-20,+1). Fuller et al. (2002) have mentioned that "while bidder returns are on average small, there is a tremendous variation in returns and many bidders are trying to be one of the winning firms." Given the significant difference between CSR and non-CSR bidders, we claim that CSR firms win from the numerous

bidders.

Table 5 reports the cumulative abnormal returns for bidding firms at the announcement period (-1,+1), grouped by 4 panels. Panel A contains the results for the matching sample by payment methods. For common bidders, takeovers by cash payment usually outperform those using stock (Travlos (1987)). However, in our matching sample, we find bidders using cash payment underperform bidders using stock or mix payment, both in the CSR group and non-CSR group. For non-CSR firms, there is a significant 2.53% abnormal return using cash compared to a significant 3.46% using stock, and for CSR firms, the abnormal return using cash is 2.75%. In addition, CSR bidders using mix payment underperform their non-CSR peers by 0.56% insignificantly.

Panel B contains the results for the matching sample by diversify dummy. Non-CSR firms seem to make diversify takeovers more frequently than CSR firms. In the non-CSR group, the cross-industry acquisitions gain a significant 5.07% versus to the a significant 2.42% abnormal return by acquisitions in the same industry. This result contradicts to (Jensen (1986))'s argue that diversified mergers are less likely to succeed since acquiring firms are not familiar with the target industry.

Panel C reports results by target public status. For both CSR and non-CSR groups, takeovers with publicly traded targets outperform private targets and contradicts to (Faccio, McConnell, and Stolin (2006))'s result that acquisitions of unlisted targets will win while acquisitions of listed targets will lose. We repute that for these takeovers with larger bidder size, investors treat them different from common takeovers, thus give different results.

Finally, results on Panel D also suggest some distinctions between CSR and non-CSR bidders. Takeovers by CSR firms with higher relative size will underperform non-CSR firms, but for those takeovers with lower relative size, the result is opposite.

Since greater relative size provides the target firm greater bargaining power (Kooli et al. (2003)), it is more difficult for bidder to buy a relatively larger target. However, in our matching sample, both CSR and non-CSR bidders give the opposite answer. Our result show that CSR bidders for relative size greater than medium gain a significant abnormal return by 3.12%, greater than those for relative size less than medium with a significant 2.99% abnormal return.

2. Long-run Stock Performance

Table 6 reports the long-run stock return post M&A for both CSR bidders and non-CSR bidders using the BHAR measure. We find that CSR bidders underperform their non-CSR matching firms insignificantly for all the three holding periods. The CSR bidder's BHAR is an insignificant negative 12.98% than their non-CSR matching firms for holding 1 year, insignificant negative 10.24% for holding 2 years, and insignificant negative 0.81% for holding 3 years.

However, in Table 7, we can see CSR bidders' long-run stock returns insignificantly positive for all the three holding periods under Fama and French three-factor model and Carhart four-factor model using the OLS and WLS methods. The weight is defined as 1 divided by the volatility square. Only when holding for 3 years using WLS method can we find CSR firms perform significantly positive (0.0050% and 0.0063%). We suspect there're two reasons for these confused results using different models. First is the number of samples are limited. The data period is from 1991/01 to 2010/12. In order to calculate the 3-year stock return, the event month period is from 1992/01/ to 2007/12 and the sample number is down to 77. The second is that CSR firms may have specific characters these two models can't detect. This unresolved problem provides direction for future research as well.

In Table 7, we also test the robust t-value. The robust t-value is 0.28, 0.37 and 1.14 for CSR bidders and 1.90, 2.15 and 2.46 for non-CSR bidders under the Fama and French three-factor model; and is 0.37, 0.56 and 1.54 for CSR bidders and 1.87, 2.38 and 2.89 for non-CSR bidders under the Carhart four-factor model.

3. Cross-section Analysis

Table 8 presents regression results of factors influencing the acquirers' announcing returns on announcement period (-1,+1). After controlling for log of firm size, log of B/M ratio, relative size, target public status dummy, payment method dummy and diversify dummy, we find a significant positive relation between CSR dummy and the bidders' announcing returns. In the matching sample (totally 168 observations with 84 CSR firms and 84 non-CSR peers), we find CSR dummy a significant positive relation (0.0388) with bidder's announcement period abnormal return. The CSR dummy also shows a significant positive influence (0.0230) on bidder's stock price when we use the full sample (4,527 observations bidding firms with 112 firms missing). Our results indicate that investors really favor for CSR firms in the M&A announcement.

Moreover, given the control variables not significant in our matching sample, we offer the regression result for the full sample with 4,336 observations and find all control variables be significant except the *Diversify* dummy. The *Private Target* dummy havs a positive 0.0157 relationship between bidders' announcement period abnormal return, and the *Subsidiary Target* dummy has a 0.0211 impact. This result is consistent to previous findings that takeovers of publicly traded targets will underperform takeovers of privately held and subsidiary firms (Fuller et al. (2002)). However, for variables *log of Firm Size*, *log of Bidder B/M Ratio* and *Relative Size*, the relationships between these variables and the bidders' announcement period abnormal return need

more discussion. The *log of Bidder B/M Ratio* has a negative impact on bidders' announcing return, which is inconsistent with previous results that firm with low B/M ratio. Rau and Vermaelen (1997) find that bidders with low B/M ratio will lose, while those with high B/M ratio will experience in the long run. They also mention that firms with low B/M ratio are those with high past stock returns. If such is the case, investors are more likely to overreact to these firms during the announcement period, and this inference may explain our regression result that B/M ratio has a negative impact on bidders' announcement period abnormal return.

Table 9 presents regression results of factors influencing the acquirers' announcing returns on announcement period (-3,+1). In the matching sample, CSR dummy still have a significantly positive relation (0.0382) to bidder's abnormal return, but the significance disappear in the full sample, since there are only 99 CSR firms in the whole sample.

Table 10 demonstrates results of factors influencing the acquirers' announcing returns on announcement period (-20,+1). We believe in M&A activities, there is insider trading before the announcement (Keown and Pinkerton (1981)). In order to grasp this potential behavior, we examine bidders' abnormal return from 20 days pre announcement to 1 day post announcement. In the matching sample, CSR dummy has a significantly positive 0.0563 coefficient, which is greater than 0.0388 for window (-1,+1) and 0.0382 for window (-3,+1). We can also find CSR dummy a significantly positive 0.0449 in the full sample. If insider trading really exists, this result may suggest that markets preference CSR firms in the M&A announcing event.

Table 11 reports the values of variance inflation factor of each variable. All VIFs are less than 10. We can exclude the possibility of collinearity.

VI. Conclusions

Motivated by the mixed results of the influence of CSR's engagement on firm's value, we extend prior researches by examining the effects of adopting CSR on bidders' stock return in a particular market---the M&A market. Our main finding is that CSR firms will experience a higher significant positive abnormal return during announcement period than non-CSR firms, and CSR does help companies gain in M&A deals. Specially, the effect of CSR engagement on the announcement period (-20,+1) appears to be more stronger than (-1,+1) and (-3,+1). However, the long-run results are not clear enough. Using BHAR model, we find CSR bidders underperform non-CSR bidders in the long run, versus to a positive abnormal return detected in CSR firms using Fama and French's three-factor model and Carhart's four-factor model. We propose two possible explanations for this inconsistence. First is that number of our CSR samples is too small. Second is that CSR firms may have extraordinary characteristics which the models can't detect. We call for future research resolving the long-run performance puzzle in M&A deals for CSR firms.

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Table 1 Distribution of Acquisition Bidders, 1991-2010 (Full Sample with 4527 Observations)

	Whole sample			CSR-firms			Non CSR-firms		
		Deal Value ($ millions)			Deal Value ($ millions)			Deal Value ($ millions)	
Year	N	Aggregate	Mean	N	Aggregate	Mean	N	Aggregate	Mean
1991	212	8,316.76	39.23	9	243.45	27.05	203	8,073.31	39.77
1992	196	5,280.24	26.94	7	325.78	46.54	189	4,955.58	26.22
1993	222	5,061.60	22.80	4	139.72	34.93	218	4,922.44	22.58
1994	297	5,283.63	17.79	3	63.57	21.19	294	5,218.50	17.75
1995	235	6,095.90	25.94	4	256.04	64.01	231	5,841.99	25.29
1996	309	6,955.59	22.51	7	1,131.41	161.63	302	5,825.58	19.29
1997	290	10,358.80	35.72	2	51.44	25.72	288	10,307.50	35.79
1998	361	10,328.20	28.61	5	115.35	23.07	356	10,210.10	28.68
1999	285	17,937.90	62.94	0	0.00	0.00	285	17,937.90	62.94
2000	248	20,586.40	83.01	3	660.03	220.01	245	19,925.90	81.33
2001	160	9,428.80	58.93	5	814.50	162.90	155	8,613.35	55.57
2002	164	4,606.76	28.09	4	93.40	23.35	160	4,513.60	28.21
2003	162	6,039.36	37.28	3	168.09	56.03	159	5,871.87	36.93
2004	200	12,364.00	61.82	6	544.62	90.77	194	11,820.40	60.93
2005	212	25,855.50	121.96	5	10,556.90	2,111.38	207	15,299.40	73.91
2006	213	13,602.10	63.86	5	691.25	138.25	208	12,912.60	62.08
2007	257	23,412.70	91.10	7	3,465.07	495.01	250	19,947.50	79.79
2008	237	25,183.60	106.26	8	8,986.40	1,123.30	229	16,197.20	70.73
2009	138	11,097.90	80.42	7	754.74	107.82	131	10,343.80	78.96
2010	129	12,845.80	99.58	5	3,760.00	752.00	124	9,085.48	73.27
Total	4,527	240,641.80		99	32,821.76		4428	207,823.90	

Table 2 Descriptive Statistics of Bidders' Size Characteristics, 1991-2010 (Full Sample with 4527 Observations)

		Whole sample			
Descriptive Statistics	N	Mean	Median	Minimum	Maximum
Total Assets	4,414	625.77	151.48	0.76	48,158.65
Book Value	4,414	181.99	65.16	0.07	18,688.57
Market Value	3,691	575.48	141.75	0.57	68,292.30
Free Cash Flow	3,558	4.97	0.36	-1,046.00	4,111.00
		CSR-firms			
Descriptive Statistics	N	Mean	Median	Minimum	Maximum
Total Assets	98	2,410.38	624.45	28.88	48,158.65
Book Value	98	1,100.16	335.93	17.32	18,688.57
Market Value	93	4,155.62	977.69	9.06	68,292.30
Free Cash Flow	91	145.60	28.50	-231.17	4,111.00
		Non CSR-firms			
Descriptive Statistics	N	Mean	Median	Minimum	Maximum
Total Assets	4,316	585.25	147.65	0.76	44,401.58
Book Value	4,316	161.14	63.38	0.07	13,072.00
Market Value	3,598	482.94	138.08	0.57	28,499.14
Free Cash Flow	3,467	1.28	0.24	-1,046.00	1,854.10

Table 3 Descriptive Statistics of Bidders' Size Characteristics, 1991-2010 (Matching Samples)

Panel A: Matching sample with 168 observations

	CSR firms					Non-CSR firms					Difference (CSR-non-CSR)	
Descriptive Statistics	N	Mean	Median	Minimum	Maximum	N	Mean	Median	Minimum	Maximum	Mean	t-stat
Total Assets	84	1,414.31	503.17	28.88	16,003.00	84	1,385.33	438.54	25.64	13,554.80	28.98	0.08
Book Value	84	654.23	283.16	17.32	6,086.00	84	624.45	265.70	19.11	5,904.29	29.78	0.20
Market Value	84	2,341.48	702.87	9.06	20,990.53	84	2,183.96	680.53	10.99	16,247.08	157.5	0.29
Free Cash Flow	78	75.28	27.46	-171.94	751.73	77	40.07	12.58	-884.00	524.81	35.21	1.38
Relative Size	84	0.58	1.00	0.00	1.28	84	0.42	0.10	0.00	3.29	0.16	2.07**
B/M Ratio	84	0.46	0.39	0.02	1.91	84	0.46	0.39	0.02	1.97	0.00	0.04

Panel B: Matching sample with 236 observations

	CSR firms					Non-CSR firms					Difference (CSR-non-CSR)	
Descriptive Statistics	N	Mean	Median	Minimum	Maximum	N	Mean	Median	Minimum	Maximum	Mean	t-stat
Total Assets	118	1,648.46	595.86	28.88	23,109.00	118	1,267.67	530.73	19.77	16,107.40	380.80	1.05
Book Value	118	771.90	309.49	9.61	9,664.00	118	620.20	283.91	11.62	4,456.20	151.70	1.06
Market Value	118	3,509.97	901.74	3.30	68,292.30	118	3,067.26	790.24	4.07	51,458.93	442.70	0.42
Free Cash Flow	115	124.50	28.50	-231.17	4,111.00	112	54.13	18.59	-884.00	658.05	70.37	1.58
Relative Size	81	0.53	0.38	0.00	1.00	97	0.41	0.10	0.00	3.29	0.12	1.67*
B/M Ratio	118	0.46	0.39	0.02	2.92	118	0.45	0.38	0.02	2.85	0.01	0.12

Table 4 Announcing Returns of Acquisition Bidders, 1991-2010 (Matching Samples)

Panel A: Matching sample with total 168 observations

		CSR-firms (sample firms)			Non-CSR-firms (control firms)		Difference (sample-control)	
Holding Period	N	Mean CAR	t-stat.	N	Mean CAR	t-stat.	Mean	t-stat
(-1,-1)	84	0.16%	0.425	84	-0.39%	-0.866	0.55%	0.94
(0,0)	84	1.21%	2.824***	84	0.06%	0.090	1.15%	1.44
(+1,+1)	84	1.69%	3.435***	84	-0.28%	-0.434	1.97%	2.43***
(-1,+1)	84	3.05%	4.438***	84	-0.61%	-0.668	3.67%	3.20***
(-3,+1)	84	2.68%	3.353***	84	-1.01%	-1.036	3.69%	2.93***
(-20,+1)	84	2.26%	1.588	84	-2.53%	-1.419	4.79%	2.10***

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Panel B: Matching sample with total 236 observations

		CSR-firms (sample firms)			Non-CSR-firms (control firms)		Difference (sample-control)	
Holding Period	N	Mean CAR	t-stat.	N	Mean CAR	t-stat.	Mean	t-stat
(-1,-1)	118	0.09%	0.295	118	-0.26%	-0.640	3.42%	0.69
(0,0)	118	0.84%	2.587***	118	-0.02%	-0.042	0.86%	1.42
(+1,+1)	118	1.37%	3.809***	118	0.04%	0.082	1.33%	2.13**
(-1,+1)	118	2.30%	4.317***	118	-0.24%	-0.328	2.54%	2.83***
(-3,+1)	118	1.73%	2.840***	118	-0.16%	-0.206	1.89%	1.89*
(-20,+1)	118	1.85%	1.622	118	-1.85%	-1.125	3.70%	1.85*

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Table 5 Announcing Returns of Acquisition Bidders of Subsamples for Window (-1,+1), 1991-2010 (Matching Samples)

Panel A: Matching sample with 168 observations

	CSR-firms			Non-CSR-firms			Difference (CSR – non-CSR)	
	N	Mean CAR	t-stat.	N	Mean CAR	t-stat.	Mean	t-stat
Panel A: Payment Method								
Cash_payment	53	2.75%	3.906***	41	2.53%	2.744***	0.22%	0.19
Stock_payment	7	5.41%	1.223	13	3.46%	1.814*	1.95%	0.47
Mix_payment	24	3.03%	2.180**	30	3.59%	2.921***	-0.56%	-0.30
Panel B: Related Acquisition								
Diversify	14	2.94%	1.610	20	5.07%	2.854***	-2.13%	-0.81
Not Diversify	70	3.08%	4.119***	64	2.42%	3.445***	0.65%	0.63
Panel C: Target Public Status								
Public	50	3.35%	3.675***	41	3.99%	3.559***	-0.65%	-0.45
Private	23	2.24%	1.616	32	2.88%	3.211***	-0.64%	-0.40
Subsidiary	11	3.43%	2.158**	11	0.08%	0.048	3.35%	1.45
Panel D: Relative Size								
Relative Size＞medium	43	3.12%	3.195***	42	3.20%	3.237***	-0.09%	-0.06
Relative Size＜medium	41	2.99%	3.041***	42	2.90%	3.000***	0.08%	0.06

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Table 5 Announcing Returns of Acquisition Bidders of Subsamples for Window (-1,+1), 1991-2010 (Matching Sample) **(Continued)**

Panel B: Matching sample with 236 observations

	CSR-firms			Non-CSR-firms			Difference (CSR – non-CSR)	
	N	Mean CAR	t-stat.	N	Mean CAR	t-stat.	Mean	t-stat
Panel A: Payment Method								
Cash_payment	49	2.73%	3.632***	42	1.74%	2.105**	0.99%	0.88
Stock_payment	7	5.41%	1.223	14	3.09%	1.717*	2.31%	0.58
Mix_payment	62	1.61%	2.427**	62	2.50%	3.334***	0.89%	0.89
Panel B: Related Acquisition								
Diversify	35	2.30%	2.761***	34	2.76%	2.346**	0.47%	0.32
Not Diversify	83	2.30%	3.412***	84	2.11%	3.638***	0.19%	0.21
Panel C: Target Public Status								
Public	45	3.55%	3.597***	47	2.84%	2.840***	0.71%	0.50
Private	41	1.29%	1.402	49	1.78%	2.659***	-0.49%	-0.44
Subsidiary	32	1.83%	2.631***	21	2.27%	1.799*	-0.44%	-0.33
Panel D: Relative Size								
Relative Size＞medium	40	3.15%	2.993***	48	2.12%	2.424**	1.03%	0.76
Relative Size＜medium	78	1.87%	3.117***	70	2.42%	3.598***	-0.56%	0.62

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Table 6 Long-term (three-year) Stock Performance using Control-firm Adjusted Returns, 1991-2008 (Matching Samples)

Panel A: CARs (Matching Sample with 168 observations)

Holding period	N	Mean CAR	t-stat.	Sign z-stat.	Skewness t-stat.
1-year	77	-5.63%	-0.756	0.122	-0.803
2-year	77	-10.24%	-1.179	-1.018	-1.229
3-year	77	-0.81%	-0.077	0.577	-0.077

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Panel B: BHARs (Matching Sample with 168 observations)

Holding period	N	Mean CAR	t-stat.	Sign z-stat.	Skewness t-stat.
1-year	77	-12.98%	-0.962	0.577	-1.165
2-year	77	-13.46%	-0.895	0.349	-0.963
3-year	77	7.34%	0.408	1.945*	0.403

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Panel C: CARs (Matching Sample with 236 observations)

Holding period	N	Mean CAR	t-stat.	Sign z-stat.	Skewness t-stat.
1-year	107	-9.50%	-1.630	-1.270	-1.791*
2-year	107	-14.61%	-1.983**	-1.463	-2.049**
3-year	107	-14.49%	-1.619	-0.303	-1.618

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Panel D: BHARs (Matching Sample with 236 observations)

Holding period	N	Mean CAR	t-stat.	Sign z-stat.	Skewness t-stat.
1-year	107	-15.48%	-1.543	0.084	-2.032**
2-year	107	-19.41%	-1.585	-0.110	-1.737*
3-year	107	-11.16%	-0.693	1.051	-0.699

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Table 7 Long-term (three-year) Performance of Abnormal Stock Returns measured by the Fama and French Three-factor Model and Carhart Four-factor Model (Value-Weighted), 1991-2008 (Matching Samples)

Panel A: Matching Sample with 168 observations

	Fama and French three-factor model				Carhart Four-factor model			
	OLS		WLS		OLS		WLS	
Holding period (Year)	CSR-firms	Non-CSR-firms	CSR-firms	Non-CSR-firms	CSR-firms	Non-CSR-firms	CSR-firms	Non-CSR-firms
1	0.0011	0.0099*	0.0027	0.0112**	0.0015	0.0104*	0.0031	0.0119**
	(0.26)	(1.83)	(0.72)	(2.41)	(0.35)	(1.89)	(0.82)	(2.51)
2	0.0014	0.0078**	0.0024	0.0073**	0.0021	0.0091**	0.0033	0.0085**
	(0.37)	(2.14)	(0.72)	(2.08)	(0.56)	(2.46)	(0.97)	(2.44)
3	0.0036	0.0076**	0.0050*	0.0059**	0.0048	0.0093***	0.0063**	0.0078***
	(1.17)	(2.41)	(1.82)	(2.03)	(1.58)	(2.98)	(2.27)	(2.72)

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Panel B: Matching sample with 236 observations

	Fama and French three-factor model				Carhart Four-factor model			
	OLS		WLS		OLS		WLS	
Holding period (Year)	CSR-firms	Non-CSR-firms	CSR-firms	Non-CSR-firms	CSR-firms	Non-CSR-firms	CSR-firms	Non-CSR-firms
1	0.0035	0.0145***	0.0026	0.0145***	0.0042	0.0142***	0.0031	0.0148***
	(0.74)	(2.86)	(0.66)	(3.38)	(0.87)	(2.74)	(0.77)	(3.37)
2	0.0035	0.0102***	0.0020	0.0090***	0.0041	0.0117***	0.0030	0.0104***
	(0.99)	(2.78)	(0.64)	(2.70)	(1.16)	(3.17)	(0.95)	(3.12)
3	0.0040	0.0085***	0.0045*	0.0073***	0.0049*	0.0102***	0.0054**	0.0088***
	(1.44)	(2.69)	(1.78)	(2.62)	(1.74)	(3.26)	(2.15)	(3.16)

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Table 8 Regression Results for Bidder Announcing Returns for Window (-1,+1)

Panel A: Full sample with 4527 observations and Matching sample with 168 observations

	Full Sample		Matching Sample	
	Coefficient	p-Value	Coefficient	p-Value
Intercept	0.0513	<.0001***	-0.0196	0.5664
CSR dummy	0.0230	0.0535*	0.0388	0.0014***
Log Bidder Market Value	-0.0105	<.0001***	0.0006	0.8951
Log Bidder B/M ratio	-0.0111	<.0001***	0.0022	0.8244
Target-to-Bidder Size	0.0237	<.0001***	0.0036	0.8339
Diversify	-0.0006	0.8814	0.0018	0.9173
Private Target	0.0157	0.0015***	0.0152	0.4682
Subsidiary Target	0.0211	0.0003***	0.0106	0.6461
Stock Payment	-0.0200	0.0007***	0.0126	0.5878
Mix Payment	-0.0147	0.0013***	0.0016	0.9235
Adjusted R^2	0.0600		0.0164	
No. of observations	4,336		168	

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Panel B: Full sample with 6050 observations and Matching sample with total 236 observations

	Full Sample		Matching Sample	
	Coefficient	p-Value	Coefficient	p-Value
Intercept	0.0592	<.0001***	0.0027	0.9367
CSR dummy	0.0229	0.0826*	0.0367	0.0021***
Log Bidder Market Value	-0.0114	<.0001***	-0.0038	0.4211
Log Bidder B/M ratio	-0.0102	0.0001***	-0.0029	0.7636
Target-to-Bidder Size	0.0256	<.0001***	0.0061	0.7154
Diversify	-0.0027	0.6064	0.0066	0.6718
Private Target	0.0159	0.0059***	0.0110	0.5778
Subsidiary Target	0.0204	0.0018***	0.0165	0.4268
Stock Payment	-0.0224	0.0015***	0.0139	0.5408
Mix Payment	-0.0162	0.0023***	0.0057	0.7110
Adjusted R^2	0.0650		0.0203	
No. of observations	3,629		178	

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Table 9 Regression Results for Bidder Announcing Returns for Window (-3,+1)

Panel A: Full sample with 4527 observations and Matching sample with 168 observations

	Full Sample		Matching Sample	
	Coefficient	p-Value	Coefficient	p-Value
Intercept	0.0386	<.0001***	-0.0182	0.6281
CSR dummy	0.0225	0.1019	0.0382	0.0040***
Log Bidder Market Value	-0.0103	<.0001***	0.0008	0.8715
Log Bidder B/M ratio	-0.0093	0.0005***	0.0075	0.4936
Target-to-Bidder Size	0.0334	<.0001***	0.0048	0.7969
Diversify	-0.0033	0.5425	-0.0009	0.9606
Private Target	0.0262	<.0001***	0.0257	0.2665
Subsidiary Target	0.0312	<.0001***	0.0033	0.8973
Stock Payment	-0.0110	0.1046	-0.0050	0.8432
Mix Payment	-0.0124	0.0189**	-0.0029	0.8708
Adjusted R^2	0.0733		0.0096	
No. of observations	4,336		168	

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Panel B: Full sample with 6050 observations and Matching sample with total 236 observations

	Full Sample		Matching Sample	
	Coefficient	p-Value	Coefficient	p-Value
Intercept	0.0461	<.0001***	-0.0090	0.8051
CSR dummy	0.0215	0.1565	0.0348	0.0063***
Log Bidder Market Value	-0.0113	<.0001***	-0.0026	0.6026
Log Bidder B/M ratio	-0.0081	0.0085***	-0.0007	0.9503
Target-to-Bidder Size	0.0359	<.0001***	0.0085	0.6347
Diversify	-0.0061	0.3044	0.0037	0.8241
Private Target	0.0273	<.0001***	0.0219	0.3020
Subsidiary Target	0.0312	<.0001***	0.0152	0.4943
Stock Payment	-0.0124	0.1259	-0.0017	0.9443
Mix Payment	-0.0132	0.0316**	0.0038	0.8175
Adjusted R^2	0.0799		0.0079	
No. of observations	3,629		178	

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Table 10 Regression Results for Bidder Announcing Returns for Window (-20,+1)

Panel A: Full sample with 4527 observations and Matching sample with 168 observations

	Full Sample		Matching Sample	
	Coefficient	p-Value	Coefficient	p-Value
Intercept	0.0163	0.2369	-0.0465	0.4861
CSR dummy	0.0449	0.0578*	0.0563	0.0163**
Log Bidder Market Value	-0.0132	<.0001***	0.0025	0.7895
Log Bidder B/M ratio	-0.0024	0.5997	0.0145	0.4529
Target-to-Bidder Size	0.0352	<.0001***	-0.0122	0.7128
Diversify	-0.0034	0.7145	0.0042	0.8985
Private Target	0.0535	<.0001***	0.0692	0.0915*
Subsidiary Target	0.0603	<.0001***	0.0570	0.2035
Stock Payment	0.0110	0.3458	0.0217	0.6307
Mix Payment	-0.0012	0.8985	-0.0379	0.2356
Adjusted R^2	0.0358		0.0286	
No. of observations	4,336		168	

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Panel B: Full sample with 6050 observations and Matching sample with total 236 observations

	Full Sample		Matching Sample	
	Coefficient	p-Value	Coefficient	p-Value
Intercept	0.0189	0.2374	-0.0188	0.7783
CSR dummy	0.0464	0.0769*	0.0400	0.0861*
Log Bidder Market Value	-0.0145	<.0001***	-0.0079	0.3920
Log Bidder B/M ratio	-0.0033	0.5280	0.0110	0.5679
Target-to-Bidder Size	0.0363	<.0001***	-0.0083	0.8012
Diversify	-0.0054	0.6031	0.0312	0.3079
Private Target	0.0584	<.0001***	0.0788	0.0445**
Subsidiary Target	0.0632	<.0001***	0.0828	0.0442**
Stock Payment	0.0135	0.3381	0.0182	0.6838
Mix Payment	0.0003	0.9738	-0.0347	0.2560
Adjusted R^2	0.0372		0.0678	
No. of observations	3,629		178	

*** indicates significance at the 1% level; ** indicates significance at the 5% level; and * indicates significance at the 10% level.

Table 11 Collinearity Test

Panel A: Full sample with 4527 observations and Matching sample with 168 observations

	VIF	VIF
	(Full Sample)	(Matching Sample)
Intercept	0	0
CSR dummy	1.0497	1.0408
Log Bidder Market Value	1.3986	1.5541
Log Bidder B/M ratio	1.4107	1.7902
Target-to-Bidder Size	1.1712	2.1504
Diversify	1.2036	1.3454
Private Target	1.8444	2.8305
Subsidiary Target	1.4341	1.7576
Stock Payment	1.3371	1.6483
Mix Payment	1.5929	1.7131
No. of observations	4,415	168

Panel B: Full sample with 6050 observations and Matching sample with total 236 observations

	VIF	VIF
	(Full Sample)	(Matching Sample)
Intercept	0	0
CSR dummy	1.0514	1.0499
Log Bidder Market Value	1.4312	1.6387
Log Bidder B/M ratio	1.4298	1.8378
Target-to-Bidder Size	1.1521	2.1125
Diversify	1.1924	1.2541
Private Target	1.8857	2.6534
Subsidiary Target	1.4833	1.7444
Stock Payment	1.3755	1.6379
Mix Payment	1.6162	1.7075
No. of observations	3,629	178