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The influence of CSR performance on shareholders wealth

Abstract

This research investigated whether CSR performance influences shareholder wealth at the announcement period using a worldwide sample of mergers and acquisitions. This was investigated by using a short-term event study. This research found significant and robust evidence that target CSR performance positively influences the CAR of the acquiring firm and the combined portfolio. The research also provided significant and robust evidence that acquiring firm CSR performance negatively influences the CAR of the acquiring firm and the combined portfolio. Furthermore, this research provided significant evidence that the CAR of the bidding firm and combined portfolio is negatively influenced when the difference between the firms in CSR performance increases, however these results are not robust.

Keywords: mergers and acquisitions (M&A), event study, corporate social responsibility (CSR), abnormal returns

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Table of Contents

1. Introduction

The last three decades interest in corporate social responsibility (CSR) has increased for firms, society and scholars (Gutsche, Schulz, & Gratwohl, 2017). Issues such as pollution, waste, rights and status of workers, product quality and safety and resource depletion are getting more attention and concern (Garcia-Sanchez, Cuadrado-Ballesteros, & Sepulveda, 2014; Reverte, 2009). This has led to several stakeholders demanding more transparency (Kim, Park, & Wier, 2012). Increasingly governments and stock exchanges demand that firms publish more CSR information (Gutsche et al., 2017). Firms are providing more and more transparency about their CSR activities, special CSR reporting has increased in the last years. According to KPMG (2011) 95% of the 250 biggest firms reports about CSR issues.

Despite the increase in attention for CSR, the question why firms engage in CSR still prevails. The discussion mainly focusses on whether CSR investment that go beyond complying with laws or rules leads to shareholders wealth increase or whether it is beneficial for stakeholders or management at the expense of the shareholders. This discussion is driven by the fact that earlier research about socially responsible investing (SRI) and firm performance delivered mixed results. Research finds positive relation between SRI and portfolio performance (Derwall, Guenster, Bauer, & Koedijk, 2005), while other researcher find no differences or underperformance between SRI funds and conventional funds (Bauer, Koedijk, & Otten, 2005; Renneboog, Ter Horst, & Zhang, 2008a). Research about SRI gives no clear answer to whether CSR performance is beneficial for the shareholders.

In this research the relation of CSR performance and shareholder wealth will be analysed and in particular by looking at cumulative abnormal returns (CAR) during the announcement period of mergers and acquisitions (M&A). Looking at the announcement effect during M&A has two reasons. The first reason is that other research about the relation of CSR performance and firm performance have the problem of reversed causality. The problem of reversed causality emerges because the question, whether firms with better CSR performance are valued higher or firms have better financial performance invest more in CSR, is hard to answer (Jiao, 2010; McWilliams & Siegel, 2000; S. A. Waddock & Graves, 1997). Using abnormal returns during the announcement period of M&A, the problem of reversed causality can be potentially be mitigated as it is an unexpected event (Deng, Kang, & Low, 2013).

Secondly, M&A decision are one of the most important corporate decision. The outcome of such a decision will influences all shareholders and stakeholders. This makes it one of the most interesting times to investigate.

According to earlier research, there are two ways how CSR performance could influence shareholder wealth during M&A. Aktas, De Bodt and Cousin (2011) empirically shows that buying target firms with high CSR performance positively influences shareholder wealth of the acquiring firm. The research of Deng et al. (2013) looks at how the CSR performance of the acquiring firm influences the CAR of the acquiring firm during mergers. This paper finds that it is not the target CSR performance that positively influences higher CAR for the acquiring firm but is driven by CSR performance of the acquiring firm. Both the research of Aktas et al. (2011) and Deng et al. (2013) measure shareholders wealth using a short-term event study.

The previous work about the relation of M&A and CSR focusses only on the influences of target or acquirer CSR performance. This research will use both target and acquirer CSR performance to explain shareholder wealth creation. Shareholder wealth creation will be measured by using CAR for all groups of shareholders. So for the target firms, acquiring firm and for the market value weighted portfolio of both firms. Further the previous papers look at the absolute value of CSR performance for the target or acquiring firm. This research will also look at relative CSR performance, the difference between CSR performance of the acquiring and target firm. Since difference between firms is the reason why M&A deals could result in positive synergies effect and this is potentially also the case for CSR performance differences. The aim of the research is formulated as followed:

Does CSR performance of target firm, acquiring firm or the difference between CSR performance influence the wealth of shareholders of the target and acquiring firm during at the announcement period of the mergers and acquisitions deals?

Using an event study methodology this research show that acquiring firms gain more when buying socially responsible target firms, measured in CAR. However the fit between companies in CSR is also important for the acquiring firm shareholders wealth. When differences between companies in CSR performance increases, this negatively influences the CAR. This research hypothesis that large differences in CSR scores indicate a bad fit of companies. That markets expect that the integration of firms with high differences in CSR

performance have a higher chance of failing and resulting in lower CAR. Further the research shows that acquirers with higher CSR performance perform worse when engaging in M&A deals. CSR performance does not influence the CAR of the target firms in any way.

This research will contribute in several ways. First, this research looks at an part of research of CSR that still contains a lot of questions. There are many works about CSR and their effect on disclosure, firm performance and cost of capital (Gutsche et al., 2017), however investigating the relation of CSR and firm values by using a M&A framework is only done a handful of times (Aktas et al., 2011; Deng et al., 2013; Hawn, 2013; Malik, 2014b; S. Waddock & Graves, 2006).

Secondly, almost all researchers about CSR and M&A make use of U.S. sample (Deng et al., 2013; Malik, 2014b; S. Waddock & Graves, 2006). Instead of focussing on one region, this research uses a worldwide sample. The view on CSR can change in different countries and cultures, therefore only looking at the market of the U.S., will not give the full picture of the view on CSR. The American government, for example, is far less engaged in social and economic activity then the European government (Lijphart, 1984; Matten & Moon, 2008). This results in more freedom for firms in the U.S. and could potentially lead to different valuation of CSR.

Furthermore, earlier research that links CSR and M&A only investigated absolute CSR scores. This research will introduce relative CSR as a new way to measure whether CSR influences M&A results. Looking at the relative CSR scores potentially gives more information about the potential of deal rather than the absolute values. Since differences between firms is the reason why potentially positive synergies values can be generated. However there are two sides to the story, since difference between firms may result in bad fits of companies, this could lead to worse cases of M&A outcomes.

The remainder of this research is structured as followed: Chapter two will give an overview of the existing literature on CSR and M&A and the formulated hypotheses. Chapter 3 contains the research method. In chapter 4 the results will be discussed. The final chapter will discuss the conclusion, discussion, limitations and suggestions for further research.

2. Literature overview

2.1 Defining CSR

The first problem regarding research about CSR is that there is no clear universal definition of CSR (Clarkson, 1995; Wood, 1991), not from business and academic perspective. Davis (1973) defines it as the responsibility that begins where the law ends. Frooman's (1997) definition is more about the stakeholders, according to Frooman's CSR are action of a firm that have a affect an social stakeholders welfare. According to some researcher, it is impossible to find one working definition for CSR (Jackson & Hawker, 2001). Other researchers disagree with this notion. The paper of Van Marrewijk (2003) states that the problem is not that there are zero definitions possible, rather that there are so many that are biased towards specific interest. Viewing the concept of CSR as a social construction would mean that it is impossible to develop a unbiased definition (Berger & Luckmann, 1991). That it is impossible to formulate one general definition, is not a problem when the similarities in definition are large. Dahlsrud (2008) investigated the similarities in definition of CSR and divided these into five dimensions, shown in table 1.

Table 1

The 5 dimensions of CSR (Dahlsrund, 2008)	
Dimension	**Ratio**
Stakeholder	88%
Social	88%
Economic	86%
Voluntariness	80%
Environmental	59%

Based on the ratio's in table 1, there is 50% chance that a definition of CSR has all these dimensions incorporated into the definition and 97% chance that at least 3 dimensions are included. This means that the definitions of CSR are not the same, but very similar and that this would not results in problems for the research. The Thomson Reuters ESG scores have all five dimensions given in their CSR scores. Earlier work about the relation of M&A and CSR use other providers of CSR scores such as Innovest or KLD (Aktas et al., 2011; Deng et al., 2013).

All three CSR score providers use the 5 dimensions in their definition of CSR. Therefore research with a different CSR provider can still be compared.

2.2. Shareholder vs stakeholder view

There are two competing views on CSR; namely that it maximizes shareholder value and that it comes at the expense of shareholders. The shareholder maximization view is in line with stakeholder theory, the stakeholder expense is in line with the shareholder theory. These opposing views on CSR both exist, because the researchers that have investigated the link between CSR and corporate financial performance (CFP) have delivered inconsistent results. Some researchers have reported that there is a positive relation, however other researchers found a negative relation. Other researchers found a inverse U-shaped relation. This means that in the beginning, better CSR leads to better CFP, however after a certain level of CSR expenses this relation changes and more CSR expenses negatively influences CFP. First this research will summarize the findings of earlier research that support the stakeholder view about the relation of CSR and CFP. The second section shows research that supports the shareholder view.

Stakeholder view

The stakeholder theory is that firms should integrate their different stakeholders, stakeholders are defined as groups or individuals who are affected by the achievement of the firms objective (Freeman, 1984). This means that according to this theory firms need to consider how their action influence stakeholders like consumers, suppliers, employees etc. (Freeman, Wicks, & Parmar, 2004; Lee, 2008; Schaefer, 2008). When the firm provides in the needs for their stakeholders, this will ensure that the firm can continue to operate. CSR fits the shareholder theory, since it can be seen as link between the firm and their stakeholders (Alchian & Demsetz, 1972; Hill & Jones, 1992; M. C. Jensen & Meckling, 1976). A good relation with stakeholders only remains if companies keep to their commitments (Cornell & Shapiro, 1987). CSR performance can be seen as the commitment of a firm to their stakeholders.

There is a extensive list of literature that investigates the relation between CSR and firm value. Derwall et al. (2005) investigates whether environmental performance influenced firm performance. Looking at large-cap companies between the period of 1995 and 2003, they showed that firms who were the most eco-efficient outperformed firms that where less eco-friendly, in terms of firm performance. Kempf and Osthoff (2007) investigate whether SRI

portfolios outperform conventional portfolios. Using the KLD ratings to find socially responsible firms they show that buying stocks with high socially responsibility ratings and selling stock that score low on socially responsibility lead to abnormal returns of up to 8.7% every year. They achieved the highest abnormal returns by creating a portfolio with only of the best in class firms, based on the KLD ratings. This means that the portfolio contains firms that score high on multiple areas of the KLD scores. Statman and Glushkov (2009) employ a similar research as Kempf and Osthoff (2007) and state the same conclusion. They also use the KLD ratings to determine the CSR performance of firms. They also find that by shifting from a conventional portfolio to a portfolio with high CSR scores leads to higher returns for investors. This finding also supports the theory that doing good also means doing well.

The above-mentioned papers show that CSR and CFP are positively related, but through which channels does CSR influence the CFP? A major part of CSR is the engagement made to better the relation with the employees, who are one of the most important stakeholders. Employee morale can be improved by engaging in CSR activities (Soloman & Hansen, 1985). Better employee morale can assist the firm in building a reputation as a high quality employer and this helps firms in hiring better talents and more motivated personnel (Edmans, 2011; Roberts & Dowling, 2002). Edmans (2011) showed that human capital has a positive relation with long term stock returns. By comparing the 100 best companies to work for in the US from 1984 till 2009, this research showed that these companies performed 2.1% better than the industry benchmark when controlling for firm characteristics, different weighting methodology and removal of outliners.

Several researchers have investigated if CSR influences the cost of capital. Goss and Roberts (2011) investigate the relation between CSR and the cost of borrowing. Based on CSR, two groups pay higher cost of borrowing, this are the firms with the lowest and highest CSR expenses. Their conclusion is that CSR indeed has a negative relation on cost of capital however that it is U shaped. When CSR expenses get too large, the borrowing cost start to increase. Both the research of El Ghoul, Guedhami, Kwok, and Mishra (2011) and Plumlee, Brown, Hayes, and Marshall (2015) investigate the relation of CSR performance and the cost of equity for firms from the U.S.A.. Both papers come to the same conclusion that firms with superior CSR performance have lower cost of equity financing. The paper of Chava (2014) only focusses on the environmental dimension of CSR and how this influences cost of debt and equity. The results are that shareholders of firms with high environmental concerns demand

higher required returns of these firms. Firms with high environmental concerns further have less institutional ownership and pay higher rates on their bank loans and there are fewer banks that participate in syndicate loans for these firms.

There are more channels through which CSR positively influences CFP. Brand equity and consumers satisfaction are achieved by CSR and give companies a competitive advantages on competition and this results in an increase of sale and provability for the firm (T. J. Brown & Dacin, 1997; Lev, Petrovits, & Radhakrishnan, 2010). Furthermore, CSR can help firms to expand their product market, differentiate their products from their competitors and build a better brand name (Bloom, Hoeffler, Keller, & Meza, 2006; Menon & Kahn, 2003). Companies that operate in industries with high regulation can create better relation with governments by engaging more in CSR (Freedman & Stagliano, 1991; Shane & Spicer, 1983). Firms that have high levels of CSR will receive more positive media coverage and also leads to a more favourable treatment by policymakers (W. O. Brown, Helland, & Smith, 2006).

So in short, CSR has many potential channels through which it can positively influences a firm. Based on the above-mentioned research one could conclude that performing well in CSR results in better firm performance and benefits the shareholders.

Shareholder view

Companies have a responsibility to society. Some scholars argue that this is not in line with the main objective of a firm, namely wealth maximizing for stockholders. There is also a group of scholars that think that the costs of CSR are higher than the benefits it can create (Alexander & Buchholz, 1978; McWilliams & Siegel, 2000). Some think CSR engagement comes from the motivation that managers want to be seen as a responsible steward and that this comes at the expense of shareholders (Barnea & Rubin, 2010). The shareholder view holds that the only purpose of a firm is to make money for their shareholders. So being noble with the money of the shareholders, is not good for the shareholders (Cheers, 2011).

In support of the shareholder view, different papers have shown that SRI funds or portfolios that are screened on CSR underperform when compared to normal funds or portfolios (Hong & Kacperczyk, 2009; Renneboog, Ter Horst, & Zhang, 2008b). Some researchers also show that SRI funds do not perform different than conventional funds (Bauer et al., 2005; Schröder, 2007).

2.3 M&A research

Takeovers are an important part of the corporate world. There have been countless M&A deals and it has cost billions of dollars. The reason for all these acquisitions is the promise that it will increase the shareholder wealth (Bradley, Desai, & Kim, 1988; Bruner, 2002; Lubatkin & O'Neill, 1987; Nielsen & Melicher, 1973)[1]. This is achieved through several channels like synergies or replacing underperforming firms. However the fast literature about M&A generally comes to the conclusion that M&A creates value since the target firms gain and the acquirers generally have no gains, small gains or small losses (Bruner, 2002; Datta, Pinches, & Narayanan, 1992; Franks & Harris, 1989; M. C. Jensen & Ruback, 1983; Loughran & Vijh, 1997). Often the reason why M&A fails is that the integration of the firms fails (Bijlsma-Frankema, 2001; Cartwright & Schoenberg, 2006; Lodorfos & Boateng, 2006; Nguyen & Kleiner, 2003). If the integration fails, the result is that the potential synergies are not achieved.

2.4 CSR and M&A research

Although CSR and M&A as research topic individually have delivered fast bodies of research, the combination is only investigated a handful of times. The paper of Bekier, Bogardus, and Oldham (2001) is one of the first works that show that CSR potentially can have an effect on the shareholder wealth during M&A. By looking at M&A in the U.S.A. from 1995 till 1996, the paper found that in the transition period of a merger good management of stakeholder relations is important. When firms do not handle stakeholders relation well, important stakeholders such as employees or consumers will leave the company. The loss of these stakeholders decreases firm value. Although the work makes no direct relation with CSR, CSR can be seen as a proxy of good relation between firms and there stakeholders.

S. Waddock and Graves (2006) look at the impact M&A has on innovative corporate stakeholder practices. M&A has the possibility to be a disruptive force for stakeholder-related practices, thus potentially M&A could eliminate progressive stakeholder-related practices. For their research they use the KLD ratings too compare target and bidding firms on their strength and weaknesses for U.S.A. firms from 1993 to 1997. The research shows that stakeholder practices do not seem to influence M&A decisions. This is based on the fact that pre-merger the target and bidding firms have only a few difference in their stakeholder practices and that

[1] Researcher also have other possible explanations for M&A, managerial hubris (Morck, Shleifer, & Vishny, 1990; Roll, 1986), empire building theory (Trautwein, 2013).

the post-merger firm has more concerns, which is likely caused that the acquiring firm policies are dominant over target firm policies that kept of concern.

Aktas et al. (2011) investigate whether bidders stock market reaction is higher when bidders acquirer target firms with higher CSR performance. To measure CSR performance the paper uses the Innovest's Intangible Value Assessment (IVA). The IVA rating works by assessing how well a firm can cope with social and environmental risk. To measure the stock market reaction, a short-term event study is used. The research shows that SRI is value creating for the acquiring firm in the M&A context. Acquirers abnormal returns are positively associated with the social and environmental performance of the target firms. The results indicate that the better the target firm is in terms of environmental and social performance, the higher the gains for the shareholders of the acquiring firm. The paper also gives evidence that after the M&A deal firms indeed learn from each other's CSR practices. This illustrates that after the deal, for the acquiring firm their CSR ratings increases and that this increase is larger when the differences in CSR performance is larger.

Berchicci, Dowell, and King (2012) investigated how differences in environmental capabilities influence change of ownership for U.S.A manufacturers. The results indicate that firms acquirer firms with different level of environmental capabilities. A possible explanation for this is that the set of routines that make that these firms have better environmental capabilities are hard to replicate (Nelson & Winter, 1996). So by changing corporate ownership these practices can by learned by firms. The paper of Berchicci et al. (2012) therefore focusses on relative capabilities and give two options how this could works "cream skimming" and "turnaround" (Banaszak-Holl, Berta, Bowman, Baum, & Mitchell, 2002). If a firm has the belief that it has a superior environmental practice, it could purchase a firm and copy their own practices to the target firm, the so called turnaround tactic. Cream skimming is when acquirer beliefs that target firm has better environmental practice and by acquiring this firm they could implant this on their own situation. The results of the paper show that firms choose M&A targets not based on the absolute level of environmental capabilities M&A, but rather on the relative difference.

Deng et al. (2013) employ a similar research method as Aktas et al. (2011) both use an event study methodology to measure abnormal returns. Instead of looking at the relation of the targets ratings and acquirers abnormal returns, the paper investigated the relation of bidders CSR performance and bidders CAR. The potential problem of endogeneity is solved in

the paper by employing a 2SLS regression. Using a dataset of U.S.A mergers between 1992 and 2007 they show that acquirers CSR performance creates positive value for the stockholders of the acquiring firm. Rather than using the IVA, they employ the KLD indicators. This is one of the most comprehensive database about CSR ratings, however they only follow firms located in the U.S.A.. They find that acquires with high CSR performance, measured by the KLD indicators, earn higher merger announcements returns. They also look at long-term operating performance after the merger. They show that acquires also realize positive long-term stock returns, this would suggest that the market does not fully values the benefits of CSR at the announcement.

So why would higher CSR performance of acquirers lead to more abnormal returns during a M&A announcement period? To answer the question; A firm can be seen as a nexus of contracts between the firm and their shareholders and stakeholders, each of them deliver critical resources to the firm because of claims from explicit and implicit contacts (Coase, 1937). Such implicit contract have little or no legal security and in such a way, these implicit contract only have value if stakeholders belief that the firms will honour these commitments (Cornell & Shapiro, 1987). Firms that invest more in CSR generally have a better reputation of keeping implicit contracts and therefore stakeholders will contribute more resources to firms with better CSR performance leading to long-term profitability and efficiency (Freeman et al., 2004; Jawahar & McLaughlin, 2001; M. Jensen, 2001). Mergers and acquisition could upset these implicit contract and relations resulting in stakeholders not delivering the key resources after the merger or acquisitions. Since firms with high CSR scores have a good reputation for honouring implicit contacts, stakeholders should have more trust that the implicit contract will be honoured and will keep suppling crucial resources leading to more better M&A deals.

The paper of Malik (2014) investigates how the CSR performance of targets influences the premiums paid by the acquirers. The paper looks at U.S.A. mergers and acquisitions from 1992 to 2013. The study shows that targets with better CSR performance get paid higher premiums by the acquirer. The research looks at both the social and environmental performance. The environmental performance has the strongest effect on the premiums paid by the acquiring firm.

2.5 Hypotheses

CSR performance is build out of environmental and social performance. Potentially both are valued different by the market and therefore have different effects on shareholders wealth during M&A deals. Empirically results show difference in the strength of effect of environmental and social scores (Aktas et al., 2011; Malik, 2014). To control for this all the hypothesis and all the models are run separately with total CSR, environmental and social performance.

The first hypothesis will look at the effect of the targets CSR performance on CAR. Aktas et al. (2011) showed that the market positively rewards acquiring firms that acquirer target firms with high CSR performance. The possible explanation given by the paper is that the acquirer will learn from targets and can implement the targets superior CSR initiative on the acquiring firm. Furthermore, the paper also shows evidence that firms indeed seem to learn from each other after the M&A. The paper of Malik (2014) empirically shows that acquirers pay higher premium bids for targets with high CSR performance. Therefore shareholders of the targets with high CSR performance should benefit more. Since both the shareholders of the target and the acquirer are expected to gain from high CSR acquisition, the following hypotheses are formulated:

- H1: Target CSR performance positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.
- H1-A: Target environmental performance positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.
- H1-B: Target social performance positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.

The second hypothesis will look at the effect of the acquiring firms CSR performance on CAR. M&A can be a distributive force on stakeholder relations. The paper of Bekier et al. (2001) showed that when firms do not manage key stakeholders like employees and consumers that they will leave the firm and this will negatively influences the shareholders. Firms with high CSR scores, however, have showed that they as a firm value good relationship with their stakeholders and often inspire greater satisfaction of stakeholders. This indicates that these firms potentially can better steer the process of M&A integration, keep crucial stakeholders aboard and therefore positively influencing shareholders. The paper of Deng et

al. (2013) looked at the U.S.A market and indeed showed that acquirers with high CSR performance have higher shareholders return. The paper of Deng et al. (2013) only looked at firms in the U.S.A.. Therefore it is interesting to study more countries. The expectation is that this will also hold for other countries. Therefore the following hypotheses are formulated:

- H2: Acquirers CSR performance positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.
- H2-A: Acquirers environmental performance positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.
- H2-B: Acquirers social performance positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.

The third hypotheses will look at the difference between target and acquirers CSR performance to explain CAR. Berchicci et al. (2012) showed that firms look at relative environmental capabilities in choosing acquisitions targets for manufacturing industry. That firms consider that larger differences means that they can generate more synergies. These synergies are achieved by learning from the target "cream-skimming" or teaching the target "turn-around". This research hypothesise that firms also take this in account when engaging in M&A for other industries then manufacturing and for all CSR practices. The paper of Berchicci et al. (2012) shows that firms choose the target based on difference in CSR practices. Combining this with the results of Aktas et al. (2011) that shows that firm learn each other's, this research hypothesise that large difference in CSR performance lead to higher CAR. Higher difference equals more learning potential from CSR practices. The markets value this more and thus results in higher CAR. Therefore the following hypotheses are formulated:

- H3: A higher difference in CSR performance positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.
- H3-A: A higher difference in Environmental performance positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.
- H3-B: A higher difference in social performance positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.

Larger differences could potentially also have an adverse effect on M&A success and could have negative influences on shareholders wealth. The reason given for most failures of M&A is cultural misfits (Bijlsma-Frankema, 2001; Cartwright & Schoenberg, 2006; Lodorfos & Boateng, 2006; Nguyen & Kleiner, 2003). A meta research of Stahl and Voigt (2008) shows that difference in organizational level have negative effects on shareholders' value through less synergies realization. This research hypothesise that when firms have high differences in CSR performance that there is an indication of different norms, values and business cultures between the firms. This results in situations where less synergies will be realized, because of cultural misfits. The market therefore reacts less positive of deals with large differences in CSR performance and this results in lower CAR. Therefore the following hypotheses are formulated:

- H4: A higher difference in CSR performance negatively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.
- H4-A: A higher difference in Environmental performance negatively positively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.
- H4-B: A higher difference in social performance negatively influences shareholder wealth as measured by CAR during the announcement period of the M&A deal.

3. Methodology

In this chapter the data sample will be discussed and the methodology will be divided into two parts. The first section will explain how the CAR is calculated. The second part will be about the methodology to test whether CSR performance influences the outcome of M&A deals.

3.1 Data and sample selection

The sample of M&A deals is between 2012 and 2018. This ensures that the sample is recent. This is important, since CSR is getting more important every year. This will ensure that the data measures the current view on CSR. All mergers and acquisitions are retrieved from Thomson One. The final sample consists of 148 mergers and acquisitions with the following selection criteria:

1. Both the target and the acquirer are publicly listed firms. To perform an event study and calculate CAR, stock prices are needed. Therefore only publicly listed firms will be used.
2. The deal must be completed. At the moment of announcement, it is not sure whether the M&A will be completed or not. Therefore, M&A deals that have a low expectation of being completed will be traded at a discounted price (Sudarsanam, 2003). Since the goal is to measure the value creation of M&A only completed deals are included. This is the logical choice, because the completed deals will not suffer from lower CAR since they have a low change of being completed and are eventually not completed.
3. The deal size is above 1 million euro's. This excludes small and non-influential deals from the sample and sufficient price reaction can be seen on the markets.
4. The percentage of target firm shares held by the acquiring firm after the deal is more than 50%. This will ensure that after the deal the acquiring party has the majority voting right and get full potential of synergies possibilities.
5. Excluding firms in the financial sector (SIC codes between 6000 and 6999). This is standard for studies, since the financial sector is very different from other industry. So comparing the financial sector with other sectors will not give relevant results.
6. The acquirer and target are both rated by Thomson Reuters ESG scores.

Table 2

Data Selection criteria	Number of observations
Acquiring firm is public	399104
Target firm is public	51507
Deal announced between 2012 and 2018	7201
Deal value of at least one million dollar	5410
Deal status is completed	4251
Exclude financial sector SIC 6000 - 6999	2093
Bidding firm acquirers at least 50% of target firms shares	1204
ESG scores available for both the target and Acquirer	156
Control variables available	148

3.2 Event study methodology

The first step in the research in calculating the abnormal returns at the announcement period of M&A deals. To calculate the abnormal returns, this research will use the event study methodology. The event study methodology is essentially still the same as how Fama, Fisher, Jensen, and Roll (1969) introduced the methodology. The first step is determining the estimation period and the event window. There is no strict definition of how long the estimation period should be, generally this is between 200 and 250 trading days (Bartholdy, Olson, & Peare, 2007; Goergen & Renneboog, 2002). To ensure that the estimation window and the event window are not based on the same data there is a gap of 6 days between the start of the event window and the estimation window. Therefore, this research will use a estimation period of 250 days, that starts 256 days before the event window. For event studies, different studies use different event windows. The announcement day is not the only day used since some information is already adjusted in the price beforehand or some days later. Event windows between 10 days before and after the event is normally seen in earlier research (J. Y. Campbell, Lo, & MacKinlay, 1997). This research will use an 7-day (-3,3) event window which will ensure enough time before and after the announcement to incorporate the effect.[2]

[2] Since the choice for an event window can influence the results, there will be robustness checks with different event windows.

The next step is choosing the model to calculate the normal returns. There are several options like Capital Asset Pricing Model (CAPM), multi factor model and the market model. The CAPM model is an equilibrium model, where the price of the assets depends on the covariance between the asset and the market portfolio (Lintner, 1975; Sharpe, 1964). The CAPM model is dependent on several restrictions. However research has shown that these restrictions are questionable (Fama & French, 1996). This means that the validity of the model is harmed, these restriction can be avoided by using the market model (MacKinlay, 1997). For this paper the market model is chosen. There are several reasons for this choice, one is that this is the market model is the mostly used model in earlier research (Aktas et al., 2011; S. J. Brown & Warner, 1985; Deng et al., 2013; Goergen & Renneboog, 2002). Several research scholars have argued it is a precise estimation method when employing the event study methodology (Dyckman, Philbrick, & Stephan, 1984). It is essentially a one factor model based a market benchmark. Since a multi factor model only adds limited gains to explanatory power (J. Y. Campbell et al., 1997). The market model is widely employed and more complex models do not perform better, therefore choosing for the simpler market model is better. Since this research uses a multi country sample there are two options for choosing the market return. Namely using one world index or use national market indexes for each firm. This paper uses national market indexes in home currencies. C. J. Campbell, Cowan, and Salotti (2010) show that using national market indexes in home currencies works better then using a world index.

After using a OLS regression with the market model one can calculate the normal returns.

$$Market\ model\ OLS = R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_i$$

By subtracting the normal returns with the real returns, one can calculate the abnormal returns. And by summing all the abnormal returns during the event window one gets the cumulative abnormal returns which can be used as the depended variable.

$$AR_{it} = NR_{it} - R_{it}$$

$$CAR_{i(-t3,t4)} = \sum_{-t3}^{t4} AR_{it}$$

$$R = return\ \ i = firm\ \ t = time\ \ M = market\ \ NR = normal\ return$$

$$AR = abnormal\ return\ \ CAR = cumaltief\ \ abnormal\ return$$

3.3 Variables

Dependent variables

The dependent variable will be CAR. M&A influences two groups of shareholders namely those of the target and the acquirer firm. Therefore, this paper will measure shareholder wealth by looking at the CAR for both shareholders groups. Section 3.2 explains how the CAR are calculated. Next to looking at the target and the acquirer, CAR will also be measured for the market value weighted portfolio of the target and acquiring firm[3]. Since the aim of the research is to investigate whether CSR adds value for the shareholders only looking at the target or acquirer will not give the full picture of shareholder wealth creation.

Independent variables

To measure CSR performance this research will use the Thomson Reuters database to gather ESG scores[4]. Firms score from 1 till 100 based on 3 CSR pillars namely, environmental, social and corporate governance performance. The database goes back to 2002 and scores for more than 7000 global firms. The asset4 dataset is the most complete dataset of CSR ratings (Semenova & Hassel, 2015). The ratings are achieved by external social auditors (Orlitzky, Schmidt, & Rynes, 2003). The KLD scores are the most used measure of CSR in academic research, but the KLD only follows firms in the U.S.A. Therefore this paper uses the Thomson Reuters ESG scores, which have the largest world coverage and is often used in academic papers. This paper will look at two pillars namely the environmental and social score. Based on both scores the total CSR is calculated. The total CSR scores is calculated by taking the equal weighted score of environmental and social performance. CSR performance is measured through three scores, the target CSR score, acquirer CSR score and the relative CSR score. Relative CSR scores is calculated by highest CSR scores minus lowest CSR score for each M&A deal.

Control variables

There is already a fast body of work on determinates that create or destroy value during M&A. These will be used as control variables and can be grouped into deal determinates and acquirer determinates. This research will not use control variables for target determinates. The reason is that for the target firm far less data was available and this would

[3] Firms CAR are weighted using their market value 11 days prior to the announcement.
[4] Formerly known as Asset4

render the sample small, for this reason these are not included.

There are essentially two ways of paying for M&A deals, the first way is using cash and the second way is stock. Earlier research has shown that when acquirers choose for stock payment, this negatively influence abnormal returns for acquirers and targets (Goergen & Renneboog, 2002; Officer, 2003; Servaes, 1991; Travlos, 1987). The explanation comes from the signalling hypothesis of Myers and Majluf (1984). According to their hypothesis when firms pay with stock, this signals too the market that they think their stock is overvalued. The market will see this as a bad signal, therefore stock payment leads to lower CAR. The method of payment is measured using a dummy that takes the value of one if M&A is fully paid with cash and zero otherwise.

Competition for a firm during M&A deals has the effect that it increases the bargaining power of the target firm, this results in higher premiums that get paid for the target firm and lower returns for the acquiring firm (Bradley et al., 1988; Moeller, Schlingemann, & Stulz, 2004). Therefore the expected effect of bidders competition is negative for the acquiring firm and positive for the target firm. Bidder competition is measured using a dummy variable taking the value of 1 if there is one bidder meaning low competition and taking the value of zero if there are multiple bidders.

Cross border leads to higher abnormal returns, these announcement signal that firms will exploit foreign markets (Eckbo & Thorburn, 2000). Cross border is measured using a dummy variable. It takes the value of one if the target and the acquirer are from different countries and zero if they are from the same county.

The research of (Asquith, Bruner, & Mullins Jr, 1983) show that acquirers abnormal returns increase when the transaction size is closer to the acquirers value. When M&A is relative larger to the acquirer, this will influence the firm more, therefore also has more influence on the CAR. Relative deal size is measured by deal size over the market value of the acquirer 11 trading days before the announcement.

Hostile bids are often seen as a threat and because of that management will often use several forms of takeover defences. Takeover defences will lead to the situation that the acquirer will pay higher premiums and this will lead to lower abnormal returns (Schwert, 2000). Or the value of the firm has decreased as a consequence of the takeover defences. The higher premiums will lead to positive CAR for the target. Hostile or friendly can be measured using dummy variables. Hostile M&A will score a one and zero otherwise.

The paper of Morck et al. (1990) shows that firms have a lower abnormal returns when they undertake diversifying M&A, this can potentially be beneficial for the managers. Further when firms are in the same industry there are higher expected synergies and this would lead to higher abnormal returns (Blackburn, Lang, & Johnson, 1990). However more recent research has shown that diversification does not always lead to less abnormal returns (Campa & Kedia, 2002; Villalonga, 2004a, 2004b) and sometimes it can lead to a higher firm value. Since earlier research shows diversifying is inconclusive, no expectation about the direction of the effect is made. Diversification is measured using a dummy variable. When two firms have different industries as classified by Fama-French, deals will take the value of one and are diversifying, when firms are from the same industry they will take the value of zero.

There have been several papers that have shown that smaller firms perform better with M&A then larger firms (Alexandridis, Petmezas, & Travlos, 2010; Eckbo & Thorburn, 2000; Humphery-Jenner, 2011; Moeller et al., 2004). Smaller firms earn small profit where M&A deals of larger firms lead to losses. The possible explanation given by Moeller et al. (2004) is that managers of big firms have managerial hubris as reason for their acquisition. For firm size the log value of the book value of total assets is taken.

Higher leverage has a positive effect on abnormal returns of the acquirers (Maloney, McCormick, & Mitchell, 1993). The explanation for this is that when firms are higher leveraged they are more monitored by their creditors, with this increase of monitoring managers have less room to make risky decisions (M. C. Jensen, 1986). Since firms are more monitored, there is a lower change they engage in M&A decisions that are risky and potentially bad for business therefore, higher CAR are expected with high leveraged firms. Leverage is measured by total debt divided by the book value of total assets.

Lang, Walkling, and Stulz (1991) find that the acquirers that have high free cash flow results in negative abnormal returns. The reason behind this comes from the free cash flow hypothesis of M. C. Jensen (1986). This states that managers of firms with high free cash flow will use the money available for their own interest rather than for their shareholders. Free cash flow makes this possible, since they are not dependent on external creditors and therefore external creditors cannot discipline managers(Maloney et al., 1993). Therefore there is higher change that M&A is undertaken for managerial purposes and this will influence the CAR negatively. Free cash flow is measured by operating income before depreciation minus interest expenses minus income taxes minus capital expenditures and scaled by book

value assets.

Earlier research has shown that the acquirers Tobin q influences the CAR. However, there are discussions whether this is a positive or negative relation. Moeller et al. (2004) find a negative relation between the Tobin q and the CAR. The earlier research of Lang, Stulz, and Walkling (1989) and Servaes (1991) find a positive relation between the Tobin q for tender offers and public firms. Tobin q is a way of looking at how well a firm performs, since the Tobin q shows how well decision made by the management paid off (Jovanovic & Rousseau, 2002; Wernerfelt & Montgomery, 1988). The Tobin q is measured by market value of assets over book value of assets. Since earlier research are inconclusive, this research does not expect a direction of the relation

This paper will use two ways proxies for probability of the firm. Market to book (MTB) ratio and return on assets (ROA) ratio. Earlier research of Easton and Harris (1991) shows that the profitability of a firm influences the value creation. Morck et al. (1990) suggested that when firms are more profitable, this is an indication that management is better than peers and when the management is better they should also perform better with M&A deals. As a measure of profitability ROA is used. Rau and Vermaelen (1998) showed that bidders with low MTB ratios outperform firms with high MTB ratio's. The possible explanation for this could be that a high MTB ration signals overvaluation of the firm.

Further the research will also control for years and industries. These factors can influence the results because of time and industries related shocks. Therefore these variables are included as dummy variables to correct for these effects.

3.4 Analysis

The effect of CSR performance on M&A performance is tested in multiple ways. The first way is using a univariate analyse. By dividing the deals in groups of high and low CSR scores, the means will be compared.[5] To test for significance both the t-test and the Wilcoxon rank-sum test are used.

Since the univariate analyse does not allow to add control variables the second way the hypotheses are tested is by using an multivariate OLS regression. The first model will investigate how target & acquirer CSR performance influences the CAR for both the shareholders of the target, acquirer as the market value weighted portfolio. Model 1 will be used to answer hypotheses 1 and 2. Environmental and social performance could potentially have a different influence on CAR. This is why for both model 1 and 2, the effect will be tested for total CSR performance, environmental performance and social performance.

$$Model\ 1:$$

$$\begin{aligned} CAR = \beta_0 + Tcsr + Acsr + Diversifying + Cash + Bidders + Hostile \\ + Cross\ border + Relsize + Size + Leverage + Free\ cash\ flow \\ + Tobin\ Q + ROA + MTB + FixedE + \varepsilon \end{aligned}$$

$$Model\ 1A:$$

$$\begin{aligned} CAR = \beta_0 + Tenv + Aenv + Diversifying + Cash + Bidders + Hostile \\ + Cross\ border + Relsize + Size + Leverage + Free\ cash\ flow \\ + Tobin\ Q + ROA + MTB + FixedE + \varepsilon \end{aligned}$$

$$Model\ 1B:$$

$$\begin{aligned} CAR = \beta_0 + Tsoc + Asoc + Diversifying + Cash + Bidders + Hostile \\ + Cross\ border + Relsize + Size + Leverage + Free\ cash\ flow \\ + Tobin\ Q + ROA + MTB + FixedE + \varepsilon \end{aligned}$$

[5] The groups are divided based on the median.

The second model investigates whether differences in CSR scores influences the CAR for both the shareholders of the target, acquirer as the market value weighted portfolio. Model 2 will be used to answer hypotheses 3 and 4.

$$Model\ 2:$$

$$CAR = \beta_0 + Difcsr + Diversifying + Cash + Bidders + Hostile + Cross\ border + Relsize + Size + Leverage + Free\ cash\ flow + Tobin\ Q + ROA + MTB + FixedE + \varepsilon$$

$$Model\ 2A:$$

$$CAR = \beta_0 + Difenv + Diversifying + Cash + Bidders + Hostile + Cross\ border + Relsize + Size + Leverage + Free\ cash\ flow + Tobin\ Q + ROA + MTB + FixedE + \varepsilon$$

$$Model\ 2B:$$

$$CAR = \beta_0 + Difsoc + Diversifying + Cash + Bidders + Hostile + Cross\ border + Relsize + Size + Leverage + Free\ cash\ flow + Tobin\ Q + ROA + MTB + FixedE + \varepsilon$$

4. Results

4.1 Descriptive statistics

Appendix 2 shows the deal distribution between industries classified by Fama-French 12 industry classification. Looking at the industry distribution between targets and acquirers they are very similar, this indicates that the most M&A deals are made between the same industries. Three industries are relative underrepresented namely consumer durables, utilities and chemicals. Business equipment is the most frequent industry. Appendix 2 also shows the distribution of deals over the years. The distribution of years in the sample is relative even, only the year 2013 is underrepresented. It does however seems that the number of deals is increasing over time. This possibly shows the effect of the financial crisis, which dampened economic activity. Most likely this is the effect of the increase of firms that are followed by Thomson Reuters ESG scores.

Appendix 3 shows how the deals are distributed between different countries. The United States is with distance the largest contributor in the sample, 50% of the acquirers are from the United States and 60% of the targets. This makes the sample distribution relative similar to that of Aktas et al. (2011) where the United States also was roughly 50% of the sample. After the United States the countries Australia, Canada and the United Kingdom have the largest portions of deals at around 10%. Further the deals are evenly distributed around the other countries.

Looking at table 3, it is visible that the target firms profit from M&A deals with a CAR mean of 21.24% and that the acquirers in this sample on average lose -0.26%. Looking at the combined firm, the CAR mean is 3.55% suggesting that in total M&A in this sample increase shareholder on average. Furthermore acquirers in this sample perform better in CSR scores then the targets. This could potentially influence the suggested learning effect. The sample will therefore contain more cases of potential “turn-around” tactic then the “cream-skimming” cases. Furthermore, almost all the deals have only one bidder (0.93) and almost half of all the deals are fully paid with cash (0.41). Further there are almost no hostile deals in the sample (0.01). Most deals are in the same industry (0.23) and roughly one third of the deals are cross-border (0.31).

Table 3

Descriptive statistics						
Variables	**N**	**Mean**	**SD**	**P25**	**Median**	**P75**
Target CAR (%)	148	21.24	17.73	9.70	19.71	27.99
Acquiror CAR (%)	148	-0.26	7.47	-4.52	0.00	3.46
Combined CAR (%)	148	3.55	6.48	-0.43	3.10	7.01
Target CSR	148	40.01	26.81	14.93	34.93	61.44
Acquiror CSR	148	63.27	28.16	38.33	68.00	90.25
Target ENV	148	38.25	28.95	13.33	25.16	63.07
Acquiror ENV	148	61.41	30.42	33.77	67.11	90.95
Target SOC	148	41.78	28.59	13.89	37.81	67.21
Acquiror SOC	148	65.13	28.20	42.14	72.94	90.48
Difference CSR	148	31.06	23.92	12.52	23.24	49.35
Difference ENV	148	31.84	25.76	10.09	26.53	50.71
Difference SOC	148	31.69	25.74	8.80	26.79	53.47
Diversifying (Dummy)	148	0.23	0.42	0.00	0.00	0.00
Cash payment (Dummy)	148	0.41	0.49	0.00	0.00	1.00
Bidders (Dummy)	148	0.93	0.26	1.00	1.00	1.00
Attitude (Dummy)	148	0.01	0.08	0.00	0.00	0.00
Cross border (Dummy)	148	0.31	0.46	0.00	0.00	1.00
Relative deal size	148	0.60	0.68	0.15	0.34	0.84
Size	148	6.95	0.71	6.48	6.98	7.51
Leverage	148	0.81	0.16	0.74	0.82	0.89
Free cash flow	148	0.05	0.06	0.02	0.05	0.08
Tobin q	148	0.57	0.20	0.45	0.57	0.72
ROA	148	0.06	0.06	0.03	0.07	0.09
MTB	148	3.31	3.74	1.34	2.42	3.70

4.2 Correlation matrix

Appendix 4 shows the results from the Pearson correlation matrix. If correlation exceed the level of -0.5 or 0.5, this indicates moderate multicollinearity, and if above -0.7 or 0.7, this indicates a high correlation (Pallant, 2005). There are multiple variables that exceed the level of -0.5 and 0.5. Environmental, social and total CSR performance are highly correlated for both the target and the acquirer. This is not a problem since it are different measures of CSR performance and those are not used in the same model. Further the market value weighted portfolio CAR are highly correlated with the acquirer and target CAR. This is again not a problem since this are different ways of measuring shareholder wealth (dependent variable) and will not be used in the same model. The correlation matrix shows no serious problems of multicollinearity, therefore all the variables are added to the regression. To

further check for multicollinearity the VIF test will be used. VIF scores of above 10 indicate multicollinearity (Field, 2009). The VIF test remains below the threshold of 10, so the sample does not suffer from multicollinearity.

4.3 Univariate test

Before using the CAR it is important to know that the calculated CAR are similar to prior empirical results. Table 4 shows the CAR for the full sample and for the target, acquirer and the market value weighted portfolio. The shareholders of the target earn the most since the mean of target CAR is 21,24%. The shareholders of the acquiring firm seem to lose a small amount, since the mean of acquirer CAR is -0.26%. Looking at both firms, the large gains of the target firms offsets the losses inquired by the acquirer shareholders for the market value weighted portfolio the CAR are 3,55%. These results are similar to prior research. Bruner (2002) used a meta study and found that CAR for the target are the same across different papers. Targets earn significant positive returns. The targets in this sample on average earn 21.24% CAR, which is significant at the 1% confidence level. This is comparable to previous empirical results, Servaes (1991) found CAR of 23.64% for targets and DeLong (2001) found 16.11% CAR for targets.

However results about the CAR for acquirer are not as unanimous. Asquith, Bruner, and Mullins (1990) found that acquiring firms earn negative CAR of -0.85% between 1973 and 1983. Houston and Ryngaert (1994) found negative abnormal returns of -2.61% between 1991 and 1996. There are also researchers that found positive CAR for the acquirer, for example Loderer and Martin (1990) found CAR of 0.57% and Jarrell, Brickley, and Netter (1988) found CAR of 1.14%. For acquirers the CAR are mostly around zero and sometimes positive or negative. In this sample CAR for acquirers is on average -0.26% and therefore similar to earlier research.

Bruner (2002) concluded that the gains of the target offset the losses of the acquiring, meaning that the combined return for both acquirer and target are positive. The CAR in the sample for the equal weighted firm is 3.55%. Therefore it is possible to conclude that the calculated CAR are similar to earlier empirical results and can be used in the analyses.

Hypothesis 1

First, the hypotheses will be tested using univariate analyses. The samples are distributed into two groups: high and low CSR scores. The groups are divided based on the median. Table 4 shows the influence of target CSR performance on the CAR of the target, acquirer and combined firm. The difference between the means when looking at the CAR for the target is negative. This means that the target firms with higher CSR ratings earn lower CAR on average. However, both the t-test and the Wilcoxon rank-sum test show that the difference between the means in not significant. This is against the formulated hypothesis. Based on the expectation the CAR should be higher for the group consisting of high CSR scoring targets. These results are against the research of Malik (2014), who showed that target firms with high CSR performance earn higher premiums. When the firms get paid higher premiums, one would also expect that firms earn higher CAR. The effect is not different when redistributing the group based on environmental or social performance.

Acquirers that buy firms with high CSR performance earn positive CAR. The acquirers that buy low performing CSR target have a negative mean of CAR. The results are the same for social and environmental performance distribution. Also in this case when testing if the difference is significantly both the t-test and the Wilcoxon rank-sum show that this is not the case. However not significant, the direction of the effect is in line with earlier research of Aktas et al. (2011) who showed that firms that acquire targets with higher CSR performance, earn higher CAR.

Looking at the combined firm the results are roughly the same as that of the acquirers. The difference is still positive, only slightly lower. Again the results are not significant based on both the t-test and the Wilcoxon rank-sum. Since all the results are not significant, hypothesis 1 is rejected based on the univariate test.

Table 4

Influence of target firm CSR performance on CAR (-3, 3)										
Total Sample				**Target High CSR**		**Target Low CSR**		**Test of Difference (H-L)**		
	N	**Mean**	**T-Value**	**N**	**Mean**	**N**	**Mean**	**Mean**	**T-Value**	**Z-Value**
Target Firm	148	21,24%	14.5728***	74	19,55%	74	22,93%	-3,38%	-1,1612	-1,599
Acquirer Firm	148	-0,26%	-1,4179	74	0,64%	74	-1,15%	1,79%	1,4594	1,174
MV Weighted Portfolio	148	3,55%	6.6656***	74	3,90%	74	3,20%	0,70%	0,6577	1,012
Total Sample				**Target High ENV**		**Target Low ENV**		**Test of Difference (H-L)**		
	N	**Mean**	**T-Value**	**N**	**Mean**	**N**	**mean**	**Mean**	**T-Value**	**Z-Value**
Target Firm	148	21,24%	14.5728***	74	19,61%	74	22,87%	-3,26%	-1,1176	-1,381
Acquirer Firm	148	-0,26%	-1,4179	74	0,48%	74	-1,00%	1,48%	1,2072	1,221
MV Weighted Portfolio	148	3,55%	6.6656***	74	3,73%	74	3,37%	0,36%	0,3296	0,771
Total Sample				**Target High SOC**		**Target Low SOC**		**Test of Difference (H-L)**		
	N	**Mean**	**T-Value**	**N**	**Mean**	**N**	**mean**	**Mean**	**T-Value**	**Z-Value**
Target Firm	148	21,24%	14.5728***	74	19,51%	74	22,97%	-3,46%	-1,1896	-1,319
Acquirer Firm	148	-0,26%	-1,4179	74	0,65%	74	-1,16%	1,81%	1,4785	1,243
MV Weighted Portfolio	148	3,55%	6.6656***	74	4,28%	74	2,83%	1,45%	1,3647	1,438
The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.										

Hypothesis 2

Table 5 shows how the CSR performance of the acquiring firm influences the CAR of the target, acquirer and combined firm. For targets that are acquired by high performing CSR firms the CAR increase and this effect becomes stronger when looking at the social score. The t-test and the Wilcoxon rank sum test show that the difference between the groups is not significant. Although the direction of the effect is accordance the hypothesis the effect is not significant.

Acquirers that score high in CSR earn on average lower CAR. Based on earlier work of Deng et al. (2013) the expectation was that acquirers with high CSR scores would do better at M&A and therefore have higher CAR. However the difference between the groups are small and not significant based on both test. Therefore it seems that acquirers CSR performance does not influence shareholders wealth. Only in the case of environmental performance there is a positive influence although also small and insignificant.

Table 5 also shows the results for the combined firm and according to the results M&A done by low performing CSR acquirers earn higher returns for shareholders. Results are significant when evaluating total CSR performance for both the t-test at 5% and 10% for Wilcoxon rank sum test. The results are stronger for social performance, since both test are significant at the 5% confidence level. The results are not significant for environmental performance because the Wilcoxon test is not significant. Therefore based on the univariate

results hypothesis two is rejected and could conclude that acquisition done by firms with high CSR performance negatively influence the shareholders.

Table 5

Influence of Bidder firm CSR performance on CAR (-3, 3)										
Total Sample				Acquirer High CSR		Acquirer Low CSR		Test of Difference (H-L)		
	N	Mean	T-Value	N	Mean	N	mean	Mean	T-Value	Z-Value
Target Firm	148	21,24%	14.5728***	74	21,71%	74	20,77%	0,94%	0,3217	0,107
Acquirer Firm	148	-0,26%	-1,4179	74	-0,27%	74	-0,24%	-0,03%	-0,0199	-0,299
MV Weighted Portfolio	148	3,55%	6.6656***	74	2,50%	74	4,60%	-2,10%	-1.9884**	-1.875*
Total Sample				Acquirer High ENV		Acquirer Low ENV		Test of Difference (H-L)		
	N	Mean	T-Value	N	Mean	N	mean	Mean	T-Value	Z-Value
Target Firm	148	21,24%	14.5728***	74	21,67%	74	20,81%	0,86%	0,2942	0,065
Acquirer Firm	148	-0,26%	-1,4179	74	-0,07%	74	-0,44%	0,37%	0,2982	0,119
MV Weighted Portfolio	148	3,55%	6.6656***	74	2,64%	74	4,46%	-1,82%	-1.7207*	-1,557
Total Sample				Acquirer High SOC		Acquirer Low SOC		Test of Difference (H-L)		
	N	Mean	T-Value	N	Mean	N	mean	Mean	T-Value	Z-Value
Target Firm	148	21,24%	14.5728***	74	22,30%	74	20,18%	2,12%	0,7239	0,637
Acquirer Firm	148	-0,26%	-1,4179	74	-0,60%	74	0,09%	-0,69%	-0,5606	-0,598
MV Weighted Portfolio	148	3,55%	6.6656***	74	2,21%	74	4,89%	-2,68%	-2.5630**	-2.205**
The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.										

Hypotheses 3 and 4

Table 6 shows how the difference in CSR scores between the two firms influences the CAR. Table 6 shows that targets seem to gain from high difference in CSR ratings. However both statistical test indicate that the groups are not significantly different. The dataset mostly consists of deals where acquirer have higher CSR performance than the target, meaning that potentially the target in the sample gain the most from the M&A. Based on the means, it is visible that the difference in environmental performance has a greater positive influences then the difference in social performance, however the results are not significant.

Looking at the CAR for the acquirers in table 6 there is no significant difference between the two groups. Possibly this is the result that bidders in this sample on average have higher CSR performance then the targets. For the bidding the gains from the deal are lower.

The combined firm earns significant lower abnormal returns when the deals is done by one of the bidding firms with larger differences in CSR performance. The negative effect is stronger for difference in social performance, since both test are significant at 5% confidence level. With environmental performance the Wilcoxon is significant at the 10% level of confidence and the t-test at the 5% confidence level. Based on the results from the univariate test hypothesis 3 is rejected. Larger learning potential seems not to be rewarded by the

market. Hypothesis 4 is accepted. Larger difference between CSR scores results in a significant lower mean of CAR. This is likely caused by the markets not believing that these companies are compatible. The differences in CSR scores show differences in culture, values and norms that will negatively influence integration of the two firms. Earlier research have shown that misfits of culture is one of the main reasons M&A fail to reach their full potential (Bijlsma-Frankema, 2001; Cartwright & Schoenberg, 2006; Lodorfos & Boateng, 2006; Nguyen & Kleiner, 2003).

Table 6

Influence of difference in CSR performance on CAR (-3, 3)										
Total Sample				High Diff CSR		Low Diff CSR		Test of Difference (H-L)		
	N	Mean	T-Value	N	Mean	N	Mean	Mean	T-Value	Z-Value
Target Firm	148	21,24%	14.5728***	74	22,38%	74	20,11%	2,27%	0,7774	1,028
Acquirer Firm	148	-0,26%	-1,4179	74	-0,13%	74	-0,38%	0,25%	0,203	0,125
MV Weighted Portfolio	148	3,55%	6.6656***	74	2,60%	74	4,51%	-1,91%	-1.8106*	-1,576
Total Sample				High Diff ENV		Low Diff ENV		Test of Difference (H-L)		
	N	Mean	T-Value	N	Mean	N	Mean	Mean	T-Value	Z-Value
Target Firm	148	21,24%	14.5728***	74	23,40%	74	19,08%	4,32%	1,487	1,542
Acquirer Firm	148	-0,26%	-1,4179	74	-1,00%	74	0,49%	-1,49%	-1,2172	-1,189
MV Weighted Portfolio	148	3,55%	6.6656***	74	2,50%	74	4,61%	-2,11%	-2.0038**	-1.898*
Total Sample				High Diff SOC		Low Diff SOC		Test of Difference (H-L)		
	N	Mean	T-Value	N	Mean	N	Mean	Mean	T-Value	Z-Value
Target Firm	148	21,24%	14.5728***	74	21,98%	74	20,50%	1,48%	0,5046	0,261
Acquirer Firm	148	-0,26%	-1,4179	74	-0,79%	74	0,28%	-1,07%	-0,8672	-0,911
MV Weighted Portfolio	148	3,55%	6.6656***	74	2,32%	74	4,78%	-2,46%	-2.3392**	-2.217**
The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.										

4.4 Multivariate test

Hypothesis 1

With the univariate analyses, there is no possibility to control for other influences. Using multivariate OLS regression enables the use of control variables. Table 7 shows the effect of target CSR performance on the CAR of target, acquirer and the combined firm. The research also looks whether the effect of target CSR performance is different when looking at social or environmental scores. For each model the same control variables are used to control for deal characteristics, bidder characteristics and fixed effects of year and industry. The definitions of the variables can be seen in appendix 1. The dependent variable is the CAR for the 7-day event window (-3, 3) for the acquirer, target and combined firm.

The coefficients of target CSR performance are negative for the CAR of the target and insignificant. This is in line with earlier research of Aktas et al. (2011) who also saw no

significant effect of target CSR performance on their own CAR. However, it is against the research of Malik (2014) that showed that target with high CSR performance get paid higher premiums, this would suggest they earn higher CAR, however this is not visible on the sample.

When investigated the effect of target CSR performance on the acquirers CAR the coefficient are positive and significant at the 1% confidence level. This indeed shows that acquirers are rewarded to invest in firms with better CSR performance. Based on the effect the acquirer earn 0.4% more CAR if the CSR rating of the target rises by ten points. This is as expected in the hypothesis and in line with earlier research of Aktas et al. (2011) that also showed positive significant effect of target CSR performance on acquirers CAR. Looking at the effect of social and environmental performance, they are both significant at the 5% confidence level and the coefficients are roughly the same showing that both are roughly equally important. The previous research of Aktas et al. (2011) showed that there was a difference and that environmental performance had greater positive influence.

For the combined firm the coefficients are indeed positive, meaning that the market reward investing in CSR and significant at the 5% confidence level. Therefore the hypothesis can only be accepted. Acquiring target firms with higher CSR performance increases shareholder wealth creation for the acquirer and for the combined portfolio. However the target firms shareholders seem to lose and this is against the expected prediction of the hypothesis. Yet the gains of the acquirers offset the losses of the targets, meaning that in total when acquiring firms acquirers target with higher CSR performance this creates shareholders value.

Table 7

	Influence of CSR performance on CAR (-3, 3)								
	Target Firm CAR			Acquirer Firm CAR			Market Value Weighted Portfolio CAR		
CSR Target	-0.0197			0.0697***			0.0497**		
	(-0.31)			(2.76)			(2.23)		
ENV Target		-0.0223			0.0585**			0.0388*	
		(-0.38)			(2.47)			(1.85)	
SOC Target			-0.0144			0.0598**			0.0456**
			(-0.25)			(2.56)			(2.22)
CSR Acquirer	-0.0295			-0.0725**			-0.0572**		
	(-0.39)			(-2.38)			(-2.12)		
ENV Acquirer		-0.0536			-0.0588**			-0.0441*	
		(-0.81)			(-2.20)			(-1.86)	
SOC Acquirer			0.0108			-0.0648**			-0.0544**
			(0.14)			(-2.12)			(-2.02)
Diversifying (Dummy)	-3.0451	-3.0198	-3.1268	0.3303	0.4876	0.4288	-0.4458	-0.2999	-0.4105
	(-0.81)	(-0.81)	(-0.83)	(0.22)	(0.32)	(0.28)	(-0.34)	(-0.23)	(-0.31)
Cash Payment (Dummy)	6.6071*	6.5708*	6.8015*	-1.8985	-1.8945	-1.9526	-0.4390	-0.4361	-0.4773
	(1.76)	(1.76)	(1.80)	(-1.26)	(-1.26)	(-1.29)	(-0.33)	(-0.33)	(-0.36)
Bidders (Dummy)	-0.7599	-0.4134	-1.1687	1.4396	0.9360	1.5989	0.3117	-0.0835	0.4830
	(-0.14)	(-0.08)	(-0.21)	(0.65)	(0.42)	(0.71)	(0.16)	(-0.04)	(0.24)
Attitude (Dummy)	-1.7826	-1.4649	-2.3202	-13.5606*	-12.7437*	-13.7503*	-8.5463	-7.8929	-8.8058
	(-0.09)	(-0.08)	(-0.12)	(-1.78)	(-1.67)	(-1.79)	(-1.27)	(-1.17)	(-1.30)
Cross Border (Dummy)	0.2749	0.3831	0.0167	-1.4205	-1.2985	-1.3673	-2.3060*	-2.2006*	-2.2926*
	(0.08)	(0.12)	(0.00)	(-1.06)	(-0.97)	(-1.02)	(-1.95)	(-1.86)	(-1.94)
Relative Deal Size	-2.5876	-2.8165	-2.2982	-0.5776	-0.4674	-0.3435	1.9501**	2.0791**	2.0831**
	(-0.96)	(-1.05)	(-0.86)	(-0.54)	(-0.43)	(-0.32)	(2.05)	(2.18)	(2.22)
Size	3.2264	3.7816	2.3214	0.9421	0.6440	1.0080	-0.2701	-0.5187	-0.1891
	(1.06)	(1.28)	(0.76)	(0.78)	(0.54)	(0.82)	(-0.25)	(-0.49)	(-0.18)
Leverage	9.1687	9.5763	9.1053	-10.2895***	-9.8628**	-10.7945***	-4.8825	-4.5749	-5.2950
	(0.93)	(0.97)	(0.92)	(-2.62)	(-2.49)	(-2.73)	(-1.41)	(-1.31)	(-1.52)
Free Cash Flow	2.2868	3.0574	-0.0269	14.9072	13.9183	13.8234	10.9942	9.9143	10.5169
	(0.07)	(0.09)	(-0.00)	(1.09)	(1.01)	(1.00)	(0.91)	(0.82)	(0.87)
Tobin q	-12.8133	-12.3682	-12.9335	12.3375***	12.4351***	11.5169***	6.6856*	6.6644*	6.1330*
	(-1.26)	(-1.22)	(-1.28)	(3.05)	(3.04)	(2.85)	(1.87)	(1.84)	(1.72)
ROA	2.0053	2.8322	1.6110	15.2642	15.4789	14.0943	10.6628	10.6991	9.8556
	(0.07)	(0.10)	(0.06)	(1.34)	(1.35)	(1.23)	(1.06)	(1.05)	(0.98)
MTB	1.3777***	1.3603***	1.3942***	-0.3884**	-0.3846**	-0.3804**	0.0286	0.0327	0.0336
	(2.95)	(2.92)	(2.98)	(-2.08)	(-2.05)	(-2.03)	(0.17)	(0.20)	(0.20)
Constant	5.8154	3.2510	9.2433	0.7319	1.9685	1.2510	9.6155	10.7349	9.8005
	(0.27)	(0.15)	(0.43)	(0.08)	(0.23)	(0.14)	(1.26)	(1.40)	(1.29)
Fixed effect: Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	148	148	148	148	148	148	148	148	148
Adjusted R-squared	0.118	0.123	0.115	0.208	0.198	0.198	0.178	0.166	0.176
The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively. T statistics in parentheses.									

Hypothesis 2

Table 7 shows the effect of acquirer CSR performance on the CAR of the target, acquirer and the combined firm. This research will also look whether the effect of acquirer CSR performance is difference for social and environmental scores. For each model the same control variables are used to control for deal characteristics, bidder characteristics and fixed effects of year and industry, the definitions of the variables can be seen in appendix 1. The dependent variable is the CAR (-3, 3) for the acquirer, target and combined firm.

When looking at the effect of acquirer CSR performance on the target CAR there is a negative coefficient for total CSR and environmental performance. The coefficient for social performance is positive. However all the coefficients are not significant. This is against the expectation that if acquirers have higher CSR scores they would better manage stakeholders and also those of the target. This would result in better and faster integrating. Leading to a higher CAR.

Table 7 shows that all measures of acquirers CSR performance have an significant negative effect on acquirers CAR at the 5% confidence level. This is against earlier research of Deng et al. (2013) who showed for mergers in the US that acquirers with high CSR scorers earn higher CAR. When looking at the combined firm, the coefficient stays negative and significant at the same level, only the environmental performance is less significant at the 10% confidence level. Therefore hypothesis 2 is rejected, since all the coefficient are significant and the coefficient are negative. Acquirers with better CSR performance do not perform better with M&A, but instead perform worse.

Hypotheses 3 and 4

Table 8 shows the effect of the difference in CSR ratings on the CAR of the target, acquirer and the combined firm. This research will also look whether the effect of difference in CSR performance is different for social and environmental scores. For each model the same control variables are used to control for deal characteristics, bidder characteristics and fixed effects of year and industry, the definitions of the variables can be seen in appendix 1. The dependent variable is the CAR (-3, 3) for the acquirer, target and combined firm.

CSR difference has a positive coefficient for target CAR and the environmental difference also has a positive coefficient for target CAR. The social coefficient however has a negative influence on target CAR. The results for all three measures of CSR performance are insignificant. So based on the results, the market does not seem to reward target when the learning potential is larger.

For the acquirers there is a negative significant effect for CSR difference at the 1% confidence level. This is against hypothesis 3, since expected was that higher relative CSR performance would lead to more CSR learning potential and this would increase the CAR. This is in line with hypothesis 4, a bigger difference increases the likelihood that firms are misfits. Therefore they earn lower CAR, since cultural misfits have greater trouble with integrating and often do not achieve the potential synergies. There seems to be no difference regarding the social or environmental dimension both are significant at the 5% confidence level. The results for the equal weighted firm are the same as for the acquirers. Therefore hypothesis 3 is rejected and hypothesis 4 is accepted.

Table 8

	Influence of difference in CSR performance on CAR (-3, 3)								
	Target Firm CAR			Acquirer Firm CAR			Market Value Weighted Portfolio CAR		
CSR Difference	0.0193			-0.0760***			-0.0682***		
	(0.27)			(-2.63)			(-2.70)		
ENV Difference		0.0262			-0.0549**			-0.0502**	
		(0.39)			(-2.01)			(-2.10)	
SOC Difference			-0.0048			-0.0625**			-0.0576**
			(-0.08)			(-2.45)			(-2.58)
Diversifying (Dummy)	-3.1399	-3.0389	-3.3474	0.5037	0.6051	0.6863	-0.4475	-0.3665	-0.2958
	(-0.85)	(-0.82)	(-0.91)	(0.34)	(0.40)	(0.46)	(-0.34)	(-0.28)	(-0.23)
Cash Payment (Dummy)	6.7319*	6.6692*	6.8687*	-1.5854	-1.6650	-1.7514	-0.1108	-0.1757	-0.2526
	(1.79)	(1.78)	(1.84)	(-1.05)	(-1.09)	(-1.16)	(-0.08)	(-0.13)	(-0.19)
Bidders (Dummy)	-1.0118	-1.0731	-0.8609	0.7472	0.6503	0.6350	-0.1452	-0.2253	-0.2366
	(-0.18)	(-0.20)	(-0.16)	(0.34)	(0.29)	(0.29)	(-0.08)	(-0.12)	(-0.12)
Attitude (Dummy)	-2.8690	-2.6390	-2.9083	-11.6448	-12.0334	-11.2896	-7.2753	-7.6340	-6.9531
	(-0.15)	(-0.14)	(-0.15)	(-1.53)	(-1.56)	(-1.48)	(-1.09)	(-1.13)	(-1.04)
Cross Border (Dummy)	-0.0212	0.0153	-0.1504	-1.2949	-1.1659	-1.0825	-2.3241**	-2.2139*	-2.1392*
	(-0.01)	(0.00)	(-0.05)	(-0.98)	(-0.87)	(-0.82)	(-2.02)	(-1.90)	(-1.86)
Relative Deal Size	-2.3859	-2.3342	-2.4990	0.1907	0.2532	0.2926	2.4789***	2.5297***	2.5638***
	(-0.94)	(-0.92)	(-0.98)	(0.19)	(0.24)	(0.28)	(2.77)	(2.79)	(2.86)
Size	2.2617	2.1839	2.4774	0.8081	0.6490	0.6500	-0.3526	-0.4859	-0.4813
	(0.83)	(0.80)	(0.91)	(0.73)	(0.58)	(0.59)	(-0.37)	(-0.50)	(-0.50)
Leverage	9.1077	8.8975	8.9705	-10.7303***	-10.1450**	-11.1934***	-5.2729	-4.7434	-5.7068
	(0.93)	(0.91)	(0.91)	(-2.71)	(-2.53)	(-2.81)	(-1.53)	(-1.36)	(-1.64)
Free Cash Flow	0.1386	-0.0354	1.3313	11.5093	10.1510	11.1742	8.8881	7.7112	8.6698
	(0.00)	(-0.00)	(0.04)	(0.84)	(0.74)	(0.82)	(0.75)	(0.64)	(0.73)
Tobin q	-12.9343	-13.3715	-12.5649	11.4105***	11.6989***	10.4256**	6.2235*	6.5106*	5.3495
	(-1.29)	(-1.32)	(-1.26)	(2.82)	(2.83)	(2.59)	(1.76)	(1.80)	(1.52)
ROA	1.7897	1.6597	2.0890	13.1780	13.0317	13.2178	9.2460	9.1280	9.3046
	(0.06)	(0.06)	(0.07)	(1.15)	(1.12)	(1.15)	(0.92)	(0.90)	(0.93)
MTB	1.4019***	1.4125***	1.3864***	-0.4030**	-0.4007**	-0.3789**	0.0109	0.0121	0.0319
	(3.00)	(3.01)	(2.98)	(-2.14)	(-2.09)	(-2.01)	(0.07)	(0.07)	(0.19)
Constant	8.8604	9.5652	8.2710	4.4832	4.0046	6.0260	12.3613*	11.8865	13.7296*
	(0.43)	(0.46)	(0.40)	(0.54)	(0.47)	(0.72)	(1.69)	(1.60)	(1.88)
Fixed Effect: Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	148	148	148	148	148	148	148	148	148
Adjusted R-squared	0.123	0.123	0.122	0.196	0.177	0.190	0.187	0.168	0.183

The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.
T statistics in parentheses.

4.5 Control variables

Target firm

Looking at the results for the target, there are only a couple of control variables significant. The main reason for this is that there are no specific target characteristic control variables, adding these variables would lower the sample size.

Deals that are fully paid in cash positively influence the CAR of the target firm at the 10% confidence level. This is in line with the expectation and with earlier research. If paying with stock signals to the market that the stock is overvalued, target shareholders do not want such stock and therefore negatively influences the CAR of the target.

Other deal characteristics are not significant. The coefficient of diversifying is negative for the target firms. Earlier research was inconclusive about whether diversifying has a negative or positive influence on CAR (Blackburn et al., 1990; Campa & Kedia, 2002; Morck et al., 1990; Villalonga, 2004a, 2004b). Therefore that the results are insignificant is not surprising.

Competition has a negative effect, this in line with the expectation that only one bidder the bargaining power of a target is lower and therefore results in payment of lower premiums (Bradley et al., 1988; Moeller et al., 2004). Lower premiums paid to the target firm result into lower CAR for the target firm.

The coefficient for hostile bids is negative. This is against the formulated expectation and earlier research. With hostile bids the target firm uses takeover defences, this results in the acquiring firm paying higher premiums. However this sample only consist of deals that are completed. The consequence of takeover defences can also be that the target firm is worthless, this could potentially lower the CAR.

The coefficient for cross border is positive in model 1 and negative in model 2. In both cases the coefficient is small and around zero and insignificant.

The coefficient for relative deal size is negative. The direction of the coefficient is accordance with earlier research. With an increase of relative deal size, this means that the two firms are increasingly of the same size. This means that the integration of the two firms is increasingly getting harder. It is more easy to incorporate a firm that is smaller, then two firms equal in size.

Further the MTB ratio of the acquiring firm as a positive effect on the CAR of the target.

The results are significant at a confidence level of 1%. The other variables for acquirer characteristics are insignificant.

Bidding firm

For the acquiring firm, several control variables are significant. The coefficient for hostile bids is negative and significant in model 1 at the 10% confidence level. In model 2 the coefficient is roughly the same as in model 1, but no longer significant at the 10% confidence level. The results for hostile bids are as the expectations, based on earlier research. Hostile bids are met with takeover defences, this increases the takeover bid that the acquiring firm has to pay (Schwert, 2000). Higher premiums mean lower CAR for the acquiring firm. Further takeover defences can lower the value of the target firm and destroy the potential for synergies, this will also results in lower CAR for the acquirer.

Leverage has a negative coefficient that is significant at the 1% confidence level. Based on Maloney et al. (1993) and M. C. Jensen (1986), the expected direction of the effect was positive. The findings in this research are the opposite of the expectations and earlier research. In the model acquiring firms with less pressure of outside creditors undertake better M&A deals.

Tobin q has a positive coefficient that is significant at the confidence level of 1%. The sample of this research consisted of public firms, earlier work found that for public firms Tobin q has a positive influences on CAR (Lang et al., 1989; Servaes, 1991). Therefore the results are in line with this earlier work. The results are the opposite of Moeller et al. (2004), who found a negative relation between CAR and Tobin q.

The MTB ratio has a negative coefficient that is significant at the 5% confidence level. This is in line with earlier work of Rau and Vermaelen (1998) that bidders with high MTB ratio perform less then acquiring firms with lower MTB ratio.

The other control variables for the acquirer are insignificant. The coefficient of diversifying is positive. For diversifying, no direction was expected since there are researchers who found a positive influence (Campa & Kedia, 2002; Villalonga, 2004a, 2004b) and other work found a negative relation (Morck et al., 1990). Therefore it's not as surprising the results are insignificant.

Fully paid in cash is negative. This is the opposite of the expectation of the signalling theory of Myers and Majluf (1984). Paying with stock would signal over valuation of stock and this would lower stock prices and results in lower CAR. The sample contains so few hostile deals that no real conclusion can be made.

The coefficient for bidders is positive. This is in accordance with the expectation and earlier work. When there is only one bidder competition is low for the target, this lowers the negation power of the target and therefore the acquiring firm can pay lower premiums (Bradley et al., 1988; Moeller et al., 2004).

The coefficient for relative deal size is negative in model 1 and positive in model 2, but in both models the coefficient is small and around zero. In this research, the influence of relative deal size is only small.

Firm size has a positive relation with CAR. This is opposite of the expectation that was formulated. Size effect is widely investigated and it is shown that smaller firms outperform larger firms (Alexandridis et al., 2010; Eckbo & Thorburn, 2000; Humphery-Jenner, 2011; Moeller et al., 2004). This research has found a positive effect for firm size which is potentially driven by the fact that the sample only consist of large firms. The selection of firms followed by Thomson Reuters on CSR ratings is low and focusses mainly on large firms. This would explain the positive and insignificant results for firm size, since all firms in the sample are large.

The coefficient of free cash flow is positive. This is opposite of the prediction based on earlier work and the free cash flow hypothesis of M. C. Jensen (1986). Managers of firms with higher free cash flow will use this for their own benefits and therefore results in worse M&A deals (Maloney et al., 1993). The results show that firms with higher free cash flow undertake better M&A deals. The reason is likely that firms with higher free cash flow are more profitable and this is possible because of the better management. This better management therefore also could perform better M&A deals.

The coefficient for ROA, a measure of profitability, is positive. This shows that bidders that are more profitability, also perform better M&A deals. The possible explanation for this is that better management leads to higher profitability and also has higher capabilities to deal with M&A.

4.6 Robustness check

Industry effect

Earlier research about M&A has shown that mergers cluster in waves and industries (Harford, 2005; Mitchell & Mulherin, 1996), this research controls for industries by using the Fama-French 12 industry classification, but this could potentially not work if all the high performing CSR firms are clustered in one industry or the low CSR performing firms are clustered in another specific industry. To check for robustness, the results will be tested by using a different industry classification then the Fama-French 12 industry classification. By using a different classification firms are redistributed in different industries. Appendix 5 shows the results when using the 2-digit sic code classification.

The effect of target firm CSR performance on the acquiring firm CAR remains positive and significant at the 1% confidence for the total CSR performance. The significance of environmental performance influence on bidder's firm CAR increases to the 1% confidence level. The influence of social performance on acquiring firms CAR remains significant at the confidence level of 5%. This is evidence that the results for hypothesis 1 are robust and are not driven by industry effects.

The results for influence of acquiring firm CSR performance on acquiring firm CAR remain roughly the same. The results remain significant, but at a lower confidence level of 10% and the effect of acquirer firm social performance is no longer significant. Therefore this is evidence that the results of hypothesis are robust.

The robustness check with different industry classification for difference in CSR performance shows moderate robustness. The coefficient roughly the same, but only the total CSR difference remains significant at the 10% confidence level. The results therefore are moderately robust since total CSR difference remains significant.

Country effect

The U.S.A. is roughly 50 percent of the acquiring firms. Possibly clustering of CSR inside the U.S.A. could influence the outcome. Therefore the analyses is performed again and the U.S.A. is excluded from the sample. Appendix 6 shows the results and the effects for all the models remain the same and significant. This is evidence that the results are robust and not influenced by one country.

Event window effect

The choice for the event-window is somewhat arbitrary, since there is no right event-window and the choice for a different event-window could potentially influence the results. Therefore the results are also tested using a 3-day (-1, 1) and a 11-day (-5, 5) event window. Appendix 7 shows the results for the 3-day event window. With the 3-day event window only the influence of target social performance on acquiring firms CAR remains significant and only on the 10% confidence level. This is evidence against the robustness of the results and showing that the event window choice influences the outcome. Evaluating the value of M&A is a very complicated process and therefore such a short event window could potentially be too short.

Appendix 8 shows the results for the 11-day event window. The influence of target CSR performance on bidder firm CAR remains the same as with the 5-day event window. This is evidence that the results of hypothesis 1 are robust. Since two out of three event windows give the same results. A possible reason for the difference at the 3-day event window can be that the three-day event windows is potentially too short of a window to measure the full effect.

The influence of acquiring firm CSR performance on bidders firm CAR is no longer significant at the 11-day event window. Since two out of three event windows do not give significant results, this is evidence against the robustness of the results of hypothesis 2.

The results for the effect of difference of CSR scores are significant for both total CSR difference and social. Environmental performance difference is no longer significant in the 11-day event window. Both the 5 and 11-day event windows result in significant results for hypothesis 4 and therefore are evidence of robust results. The influence of the chosen event window is low.

Comprehensive model

Difference in CSR performance in model 2 will also be tested for robustness when it is incorporated into model 1. Appendix 9 shows the results when the analyses consist of target CSR performance, acquirer CSR performance and difference in CSR performance. Although model 1 & 2 when investigated separately give significant results, this is no longer the case for the comprehensive model. This is evidence against the robustness of the influences of difference in CSR performance on bidders CAR. However this could also be the result that the difference in CSR performance is calculated with the target and acquirer CSR performance and therefore it is moderately correlated. This is backed by the Pearson correlation matrix in

appendix 4, where difference in CSR performance is moderately correlated with both variables. The correlation levels make it hard for the regression to determine which variables influences the CAR.

5. Conclusion and discussion

Relying on a worldwide sample, this research analysed whether CSR performance influences shareholder wealth creation at the announcement period. Based on the results of the event study, this paper concludes that CAR of the target firm are not influences by CSR performance. Not by target, acquirer or differences in CSR performance. For acquiring firms, this research concludes that the CSR performance of target firms indeed influences the CAR of the acquiring firm. Acquiring firms investing socially responsible are rewarded by the market, since buying target firms with higher CSR performance increase the CAR, based on the results the market equally values target environmental and social performance. The results also remain robust after using several robustness tests. The results are the same for the market value weighted portfolio of firms as for the target firm. Showing that investing socially responsible increases total shareholders wealth.

Further the research did not found evidence that acquiring firms with high CSR performance generate higher CAR, the contrary however was the case. The results are against the formulated expectation and earlier work that acquiring firms with high CSR performance earn higher CAR. Hypothesised was that acquiring firms that have shown commitment to stakeholder management would help them with managing the disruptive effects of M&A. This would lead to higher chance of successful M&A and therefore to higher announcement returns. However empirical results show that acquiring firms with high CSR performance, underperform in terms of acquiring firm CAR during the announcement period. The results for the market value weighted portfolio of both firms are the same as for the acquiring firm. The results are robust since most of the robustness test delivered the same results. Therefore this research concludes that investing in target firms with high CSR performance, leads to higher CAR during the announcement period and that an acquiring firm with high CSR performance negatively influences the CAR.

This paper further investigates the influences of relative CSR performance. The results show that higher differences in CSR performance lowers the CAR for the acquiring firm and the market value weighted portfolio. This is evidence against the hypothesis that higher difference in CSR ratings lead to higher learning potential of the deal and this would positively influences the CAR during the announcement period. However it is in line with the hypothesis that larger difference between firms negatively influences the CAR of a deal. One of the most

importance aspect for successful M&A, is the integration. Since without successful integration the expected synergies are not achieved. High difference in CSR performance indicated firms that will suffer from higher risk of unsuccessful integration, since difference indicate a bad match. The results are not robust, since when including target and acquirer CSR performance the effect is no longer significant and therefore are not robust.

This research is subjected to various limitations. The sample that is used is relative small with 148 deals. This is caused that following by CSR rating agency is limited and still growing every year. This limits the generalizability of the results. In addition this research did not implement specific target control variables, the reason for this decision is that this would further shrink the sample size. Moreover this research uses external ratings agency to make an assessment about companies CSR performance. There are different agency and all use their own methods. This makes their research hard to compare and it's therefore no perfect way to measure CSR performance.

This research focusses on the short-term effect of M&A, it would be interesting too investigated it with different types of analysis like long term event studies, accounting or operational performance studies. In the sample of this research acquirers in almost every case have higher ratings. It would be interesting looking at these deals where the acquirer has lower CSR ratings then the target, if this would influence the outcome of the research. Since the following by CSR rating agency is mostly only about large firms, it would be interesting to see if the results change when following smaller companies. Smaller firms are potentially more flexible and can easier adjust and therefore potentially the difference in CSR ratings could be less negative.

6. References

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7. Appendix

Appendix 1

Variable Definitions		
Variables	**Definition**	**Database**
CAR (-3,3)	7-day cumulative abnormal returns (%) calculated by using the market model. The parameters are estimated over the period (-250, -11) with the index of every country as benchmark (item P#T) (item: PI#T). Prices are adjusted for other capital events such as stock split and will give no information when the stock is dead.	DataStream
CAR (-1,1)	3-day cumulative abnormal returns (%), calculation is done similar as with the 7-day CAR.	DataStream
CAR (-5,5)	11-day cumulative abnormal returns (%), calculation is done similar as with the 7-day CAR.	DataStream
Target CSR	The average of the environmental and social score of the target. Higher scores mean that the firm puts more effort in corporate social responsibility	DataStream
Acquirer CSR	The average of the environmental and social score of the acquirer. Higher scores mean that the firm puts more effort in corporate social responsibility	DataStream
Target CSR ENV	Rating from 0 till 100, indicating how well a target takes into account the environment. Examines resource usage and reduction; emissions and emissions reductions; environmental activism and initiative and product or process innovation. (item: ENVSCORE)	DataStream
Acquirer CSR ENV	Rating from 0 till 100, indicating how well an acquirer takes into account the environment. Examines resource usage and reduction; emissions and emissions reductions; environmental activism and initiative and product or process innovation. (item: ENVSCORE)	DataStream
Target SOC	Rating from 0 till 100, indicating how well a target takes into account the environment. Examines employment quality, health and safety issues, training, diversity, human rights, community involvement and product responsibility. (item: SOCSCORE)	DataStream
Acquirer SOC	Rating from 0 till 100, indicating how well an acquirer takes into account the environment. Examines employment quality, health and safety issues, training, diversity, human rights, community involvement and product responsibility. (item: SOCSCORE)	DataStream
CSR Difference	For every deal highest CSR rating minus the lowest rating.	DataStream
ENV Difference	For every deal highest environmental rating minus the lowest rating.	DataStream
SOC Difference	For every deal highest social rating minus the lowest rating.	DataStream

Deal Characteristics		
All Cash Deal (Dummy)	1 for deals fully financed with cash, 0 otherwise	Thomson One
Diversifying (Dummy)	1 if from different industries as classified by Fama-French, 0 otherwise	Thomson One
Hostile (Dummy)	1 if hostile takeover, 0 otherwise	Thomson One
Bidders (Dummy)	1 if one bidder, 0 otherwise	Thomson One
Cross-Border (Dummy)	1 if companies come from other countries, 0 otherwise	Thomson One
Relative Deal Size	Deal size over market value 11 days prior to announcement (item: MV)	Thomson One & DataStream
Acquirer Characteristics		
Size	log of function of book value of total assets (item: WC02999)	DataStream
Leverage	Book value of debt (item: WC03251+WC03101) over market value of total assets (item: WC02999-WC03501+MV)	DataStream
Free Cash Flow	Operating income before depreciation (item: WC18155) - interest expenses (item: WC01251) - income taxes (WC01451) - capital expenditures (item: WC04601) scaled by book of value total assets (item: WC02999)	DataStream
Tobin q	Market value of total assets (Item: WC02999-WC03501+MV) over book value of total assets (Item: WC02999)	DataStream
Return on Assets	Measures probability of the target. Measured by net income before extra nary items over the average of current and last year's total assets (item: WC02999)	DataStream
Market-To-Book Ratio	Market Value over book value equity (item: MTBV)	DataStream
Fixed Effect	Year & industry	Thomson One

Appendix 2

Sample Distribution by Industry and Year														
Fama-French 12 industries	**2012**		**2013**		**2014**		**2015**		**2016**		**2017**		**Total**	
	T	**A**	**T**	**A**	**T**	**A**	**T**	**A**	**T**	**A**	**T**	**A**	**T**	**A**
Consumer Nondurables	0	0	0	0	1	1	0	0	1	3	5	5	7	9
Consumer Durables	0	0	0	0	0	0	0	0	3	2	0	0	3	2
Manufacturing	4	2	0	1	1	0	3	2	4	4	2	2	14	11
Oil, Gas & Coal	1	1	0	0	1	1	3	3	2	2	4	5	11	12
Chemicals	0	1	0	0	0	0	0	1	4	3	1	2	5	7
Business Equipment	3	3	2	2	7	5	11	9	9	9	4	5	36	33
Telephone & Television	1	2	1	1	1	3	4	6	0	0	2	1	9	13
Utilities	0	0	0	0	1	1	0	0	2	1	1	0	4	2
Wholesale & Retail Sale	1	0	1	1	2	2	2	1	3	1	4	3	13	8
Healthcare	3	3	2	1	3	3	3	3	3	3	6	6	20	19
Other	4	5	1	1	5	6	5	6	7	10	4	4	26	32
Total	**17**	**17**	**7**	**7**	**22**	**22**	**31**	**31**	**38**	**38**	**33**	**33**	**148**	**148**

Appendix 3

Sample Distribution by Country				
Nation	**Acquirer**		**Target**	
Australia	16	10.8%	22	14.9%
Bahrain	1	0.7%	1	0.7%
Canada	18	12.2%	11	7.4%
Cyprus	0	0.0%	1	0.7%
France	3	2.0%	0	0.0%
Germany	2	1.4%	1	0.7%
India	4	2.7%	3	2.0%
Ireland	2	1.4%	0	0.0%
Italy	1	0.7%	0	0.0%
Japan	5	3.4%	2	1.4%
Kuwait	0	0.0%	1	0.7%
Morocco	0	0.0%	1	0.7%
Saudi Arabia	1	0.7%	0	0.0%
South Africa	2	1.4%	4	2.7%
South Korea	3	2.0%	2	1.4%
Spain	1	0.7%	0	0.0%
Switzerland	1	0.7%	0	0.0%
Taiwan	1	0.7%	1	0.7%
United Kingdom	10	6.8%	9	6.1%
United States	75	50.7%	89	60.1%
United Arab Emirates	2	1.4%	0	0.0%
Total	**148**	**100%**	**148**	**100%**

Appendix 4: Pearson Correlation Matrix

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
wtCAR3 [1]	1																							
waCAR3 [2]	-0.0991	1																						
cCAR3 [3]	0.2368*	**0.7045***	1																					
t_esg [4]	-0.0758	0.1690*	0.0989	1																				
t_env [5]	-0.0630	0.1504	0.0780	**0.9327***	1																			
t_soc [6]	-0.0783	0.1647*	0.1066	**0.9310***	**0.7367***	1																		
a_esg [7]	0.0619	-0.0022	-0.2173*	0.3397*	0.3458*	0.2869*	1																	
a_env [8]	0.0357	-0.0229	-0.2138*	0.3235*	0.3517*	0.2505*	**0.9636***	1																
a_soc [9]	0.0851	0.0204	-0.2032*	0.3294*	0.3111*	0.3028*	**0.9575***	**0.8456***	1															
a_t_esg [10]	0.0895	-0.0602	-0.2164*	-0.3990*	-0.3363*	-0.4078*	**0.5252***	**0.5127***	0.4957*	1														
a_t_env [11]	0.0594	-0.0221	-0.1747*	-0.3070*	-0.3072*	-0.2646*	**0.5126***	**0.5276***	0.4545*	**0.9024***	1													
a_t_soc [12]	0.0915	-0.0857	-0.2274*	-0.4271*	-0.3257*	-0.4712*	0.4216*	0.3747*	0.4378*	**0.8992***	**0.6392***	1												
c_div [13]	-0.0365	0.0399	-0.0384	0.2024*	0.2036*	0.1734*	0.1301	0.1274	0.1225	-0.1368	-0.1515	-0.1011	1											
c_cash [14]	0.2907*	-0.0790	-0.1420	-0.0495	-0.0179	-0.0747	0.2681*	0.2699*	0.2442*	0.2544*	0.2297*	0.2371*	-0.0584	1										
c_bid [15]	0.0283	-0.0592	-0.0939	-0.0396	0.0062	-0.0804	0.0971	0.0933	0.0933	0.0224	0.0241	0.0297	0.0935	0.0241	1									
c_att [16]	0.0162	-0.0925	-0.0432	0.1020	0.0771	0.1133	-0.0296	-0.0203	-0.0373	-0.0387	-0.0661	-0.0103	-0.0450	-0.0681	0.0234	1								
c_cross [17]	0.0823	-0.0894	-0.1671*	0.2111*	0.2070*	0.1863*	0.1667*	0.1500	0.1710*	-0.0609	-0.0739	-0.0045	0.0150	0.2186*	0.1346	-0.0554	1							
wa_reldeal [18]	-0.2236*	0.0764	0.3191*	0.1116	0.0760	0.1323	-0.3762*	-0.3681*	-0.3541*	-0.2867*	-0.2364*	-0.2849*	-0.1228	-0.3803*	-0.0319	0.0006	-0.0450	1						
a_lsize [19]	0.0270	0.1105	-0.1514	0.1421	0.1584	0.1060	0.5766*	0.5411*	0.5677*	0.4128*	0.4282*	0.3301*	0.0916	0.2063*	0.0331	-0.0205	0.0952	-0.2553*	1					
a_lev [20]	0.0117	-0.1099	0.0145	0.0188	0.0168	0.0183	-0.0437	-0.0224	-0.0631	-0.0620	-0.0156	-0.0982	-0.0359	0.0086	-0.0735	-0.2224*	0.0085	0.1691*	-0.1016	1				
wa_free [21]	0.1287	0.0600	0.0239	-0.0520	-0.0647	-0.0319	0.2162*	0.1914*	0.2253*	0.2068*	0.1626*	0.2054*	0.0008	0.2497*	-0.0855	-0.1825*	-0.0421	-0.1454	0.0740	0.2301*	-0.0901	1		
a_tq [22]	-0.0515	0.2148*	0.1543	-0.0143	0.0022	-0.0291	0.1857*	0.2011*	0.1539	0.1847*	0.2604*	0.0721	0.0511	0.0299	-0.0083	-0.1200	-0.0545	0.1279	0.3873*	0.0003	1			
wa_roa [23]	0.1458	0.0491	0.0617	-0.0631	-0.0667	-0.0508	0.0195	0.0338	0.0026	0.0501	0.0009	0.0881	0.0716	0.2825*	-0.0262	0.2042*	-0.0356	-0.1777*	-0.1800*	-0.0653	0.3963*	-0.2358*	1	
wa_mtb [24]	0.2560*	0.0082	0.1161	-0.0472	-0.0337	-0.0545	0.1022	0.1046	0.0912	0.1024	0.0895	0.0854	-0.0035	0.2115*	-0.0281	-0.0360	-0.0540	-0.0927	0.0845	0.0770	0.3341*	0.3938*	0.2037*	1

Appendix 5

	Influence of CSR performance on CAR (-3, 3), with 2-SIC industry classification					
	Acquirer Firm CAR					
CSR Target	0.0773***					
	(2.88)					
ENV Target		0.0687***				
		(2.79)				
SOC Target			0.0588**			
			(2.39)			
CSR Acquirer	-0.0505*					
	(-1.66)					
ENV Acquirer		-0.0471*				
		(-1.73)				
SOC Acquirer			-0.0338			
			(-1.15)			
CSR Difference				-0.0537*		
				(-1.81)		
ENV Difference					-0.0428	
					(-1.55)	
SOC Difference						-0.0409
						(-1.57)
Diversifying (Dummy)	-0.6096	-0.5875	-0.3139	-0.1691	-0.1610	0.0234
	(-0.41)	(-0.40)	(-0.21)	(-0.11)	(-0.11)	(0.02)
Cash Payment (Dummy)	-2.1321	-2.2624	-2.0953	-2.0327	-2.0899	-2.1376
	(-1.47)	(-1.56)	(-1.43)	(-1.37)	(-1.40)	(-1.44)
Bidders (Dummy)	0.9860	0.4787	1.0373	0.2388	0.1646	0.1711
	(0.43)	(0.21)	(0.45)	(0.10)	(0.07)	(0.07)
Attitude (Dummy)	-10.8635	-10.1258	-10.6165	-8.5542	-8.8738	-8.1847
	(-1.40)	(-1.31)	(-1.36)	(-1.10)	(-1.13)	(-1.05)
Cross Border (Dummy)	-1.4715	-1.3629	-1.2971	-1.0034	-0.9583	-0.7989
	(-1.09)	(-1.01)	(-0.95)	(-0.75)	(-0.71)	(-0.60)
Relative Deal Size	-0.6949	-0.6221	-0.3319	0.1769	0.2454	0.2533
	(-0.62)	(-0.56)	(-0.30)	(0.17)	(0.23)	(0.24)
Size	0.7420	0.6793	0.6018	0.9336	0.8539	0.7373
	(0.67)	(0.62)	(0.54)	(0.88)	(0.80)	(0.71)
Leverage	-8.9598**	-8.6623**	-9.1986**	-9.2655**	-8.8566**	-9.5190**
	(-2.30)	(-2.22)	(-2.34)	(-2.34)	(-2.23)	(-2.39)
Free Cash Flow	11.6564	12.2336	8.5566	8.8655	7.9989	7.7779
	(0.87)	(0.91)	(0.63)	(0.65)	(0.59)	(0.57)
Tobin q	6.7283	6.8043	6.0461	5.8252	6.1390	5.0332
	(1.63)	(1.64)	(1.46)	(1.40)	(1.45)	(1.21)
ROA	16.7908	17.2139	16.0986	15.7916	15.8366	15.8072
	(1.44)	(1.48)	(1.37)	(1.34)	(1.34)	(1.34)
MTB	-0.2769	-0.2805	-0.2648	-0.2828	-0.2881	-0.2633
	(-1.46)	(-1.47)	(-1.38)	(-1.46)	(-1.48)	(-1.36)
Constant	-0.8433	0.1500	0.0395	0.9157	0.8438	2.2876
	(-0.10)	(0.02)	(0.00)	(0.11)	(0.10)	(0.28)
Fixed Effect: Industry & Year	Yes	Yes	Yes	Yes	Yes	Yes
Observations	148	148	148	148	148	148
Adjusted R-squared	0.167	0.165	0.148	0.139	0.133	0.133
The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively. T statistics in parentheses.						

Appendix 6

	Influence of CSR performance on CAR (-3, 3) excluding bidding firms from the U.S.					
	Acquirer Firm CAR					
CSR Target	0.1196***					
	(2.70)					
ENV Target		0.0968**				
		(2.29)				
SOC Target			0.1055**			
			(2.58)			
CSR Acquirer	-0.1391**					
	(-2.15)					
ENV Acquirer		-0.1156**				
		(-2.05)				
SOC Acquirer			-0.1110*			
			(-1.77)			
CSR Difference				-0.1573***		
				(-3.00)		
ENV Difference					-0.1259**	
					(-2.47)	
SOC Difference						-0.1117**
						(-2.51)
Diversifying (Dummy)	0.1435	0.1365	0.1481	0.7060	0.2093	0.4907
	(0.06)	(0.06)	(0.06)	(0.30)	(0.09)	(0.21)
Cash Payment (Dummy)	-1.6394	-1.2594	-2.2268	-0.9705	-1.1730	-1.6445
	(-0.64)	(-0.47)	(-0.86)	(-0.38)	(-0.45)	(-0.63)
Bidders (Dummy)	-5.6189	-5.0635	-6.3627	-4.9901	-4.5057	-5.8892
	(-0.92)	(-0.81)	(-1.03)	(-0.83)	(-0.72)	(-0.95)
Attitude (Dummy)	-13.7718	-12.7702	-14.3397	-10.0214	-11.0013	-10.5037
	(-1.51)	(-1.38)	(-1.54)	(-1.12)	(-1.19)	(-1.14)
Cross Border (Dummy)	-2.0821	-2.0848	-1.7848	-1.5285	-1.4946	-1.0520
	(-0.76)	(-0.74)	(-0.64)	(-0.56)	(-0.54)	(-0.38)
Relative Deal Size	1.1729	1.9524	1.2249	3.1669	3.1967	3.6970*
	(0.54)	(0.91)	(0.55)	(1.59)	(1.56)	(1.82)
Size	2.2400	1.8844	1.9647	1.3672	0.9129	1.5903
	(0.92)	(0.78)	(0.82)	(0.70)	(0.46)	(0.79)
Leverage	-8.6822	-9.0341	-9.4898	-11.1193*	-10.3690*	-12.8247**
	(-1.46)	(-1.49)	(-1.58)	(-1.92)	(-1.73)	(-2.16)
Free Cash Flow	-2.5388	-0.4303	-4.7464	3.9053	6.8500	1.8553
	(-0.10)	(-0.02)	(-0.18)	(0.15)	(0.26)	(0.07)
Tobin q	8.7926	8.1836	8.1410	8.6560	10.0992	5.4180
	(1.17)	(1.08)	(1.07)	(1.17)	(1.30)	(0.72)
ROA	5.3925	8.9134	5.4481	5.8802	9.6174	8.1057
	(0.26)	(0.44)	(0.26)	(0.30)	(0.48)	(0.40)
MTB	0.3930	0.4899	0.2889	0.1116	0.1841	0.2148
	(0.72)	(0.88)	(0.52)	(0.20)	(0.33)	(0.38)
Constant	-5.3403	-5.1774	-1.6955	4.1363	2.2188	5.6457
	(-0.29)	(-0.28)	(-0.10)	(0.25)	(0.13)	(0.33)
Fixed Effect: Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes
Observations	73	73	73	73	73	73
Adjusted R-squared	0.218	0.189	0.194	0.230	0.187	0.190

The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.
T statistics in parentheses.

Appendix 7

	Influence of CSR performance on CAR (-1, 1)					
	Acquirer Firm CAR					
CSR Target	0.0370					
	(1.62)					
ENV Target		0.0250				
		(1.17)				
SOC Target			0.0383*			
			(1.83)			
CSR Acquirer	-0.0153					
	(-0.56)					
ENV Acquirer		-0.0081				
		(-0.34)				
SOC Acquirer			-0.0180			
			(-0.66)			
CSR Difference				-0.0405		
				(-1.57)		
ENV Difference					-0.0184	
					(-0.75)	
SOC Difference						-0.0387*
						(-1.71)
Diversifying (Dummy)	0.8630	1.0237	0.8306	0.9672	1.1338	1.0219
	(0.64)	(0.76)	(0.62)	(0.72)	(0.84)	(0.77)
Cash Payment (Dummy)	-1.8293	-1.8854	-1.8218	-1.7556	-1.8718	-1.8191
	(-1.35)	(-1.39)	(-1.35)	(-1.30)	(-1.37)	(-1.35)
Bidders (Dummy)	-0.1596	-0.4468	0.0763	-0.3133	-0.4412	-0.3407
	(-0.08)	(-0.22)	(0.04)	(-0.16)	(-0.22)	(-0.17)
Attitude (Dummy)	-10.3091	-9.7047	-10.6209	-9.0400	-9.1300	-8.8376
	(-1.50)	(-1.41)	(-1.55)	(-1.33)	(-1.33)	(-1.30)
Cross Border (Dummy)	-0.0530	0.0952	-0.0913	0.1288	0.2590	0.2220
	(-0.04)	(0.08)	(-0.08)	(0.11)	(0.22)	(0.19)
Relative Deal Size	1.2200	1.3488	1.2261	1.4291	1.5224	1.4603
	(1.26)	(1.39)	(1.28)	(1.56)	(1.64)	(1.60)
Size	1.3785	1.2936	1.5004	1.7823*	1.5926	1.7445*
	(1.26)	(1.20)	(1.37)	(1.81)	(1.60)	(1.79)
Leverage	-7.7072**	-7.6269**	-7.8653**	-7.8598**	-7.6032**	-8.1734**
	(-2.17)	(-2.14)	(-2.23)	(-2.22)	(-2.14)	(-2.31)
Free Cash Flow	-3.3430	-3.9745	-3.4674	-3.6557	-4.8395	-3.5418
	(-0.27)	(-0.32)	(-0.28)	(-0.30)	(-0.39)	(-0.29)
Tobin q	4.3171	4.0657	4.1866	4.0204	3.8502	3.5279
	(1.18)	(1.10)	(1.16)	(1.11)	(1.05)	(0.99)
ROA	9.8532	9.5653	9.6612	9.1300	8.9036	9.2328
	(0.96)	(0.92)	(0.94)	(0.89)	(0.86)	(0.90)
MTB	-0.0719	-0.0671	-0.0734	-0.0897	-0.0786	-0.0794
	(-0.43)	(-0.40)	(-0.44)	(-0.53)	(-0.46)	(-0.47)
Constant	-0.2551	0.4852	-0.6917	-0.1960	0.0680	0.5727
	(-0.03)	(0.06)	(-0.09)	(-0.03)	(0.01)	(0.08)
Fixed Effect: Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes
Observations	148	148	148	148	148	148
Adjusted R-squared	0.192	0.183	0.196	0.197	0.184	0.200
The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively. T statistics in parentheses.						

Appendix 8

	Influence of CSR performance on CAR (-5, 5)					
	Acquirer Firm CAR					
CSR Target	0.0647**					
	(2.29)					
ENV Target		0.0531**				
		(2.01)				
SOC Target			0.0574**			
			(2.21)			
CSR Acquirer	-0.0512					
	(-1.50)					
ENV Acquirer		-0.0351				
		(-1.17)				
SOC Acquirer			-0.0536			
			(-1.58)			
CSR Difference				-0.0689**		
				(-2.15)		
ENV Difference					-0.0424	
					(-1.40)	
SOC Difference						-0.0630**
						(-2.23)
Diversifying (Dummy)	-0.2605	-0.0997	-0.1892	-0.0759	0.0926	0.0399
	(-0.16)	(-0.06)	(-0.11)	(-0.05)	(0.06)	(0.02)
Cash Payment (Dummy)	-2.1540	-2.1638	-2.2224	-1.9380	-2.0604	-2.0593
	(-1.29)	(-1.29)	(-1.32)	(-1.16)	(-1.21)	(-1.23)
Bidders (Dummy)	1.4122	0.9027	1.6738	0.9070	0.7674	0.8431
	(0.57)	(0.37)	(0.67)	(0.37)	(0.31)	(0.35)
Attitude (Dummy)	-13.2374	-12.5133	-13.3871	-11.2806	-11.5531	-10.9433
	(-1.56)	(-1.47)	(-1.57)	(-1.34)	(-1.35)	(-1.30)
Cross Border (Dummy)	-1.0079	-0.8905	-0.9402	-0.8015	-0.6427	-0.6322
	(-0.68)	(-0.60)	(-0.63)	(-0.55)	(-0.44)	(-0.44)
Relative Deal Size	-0.9391	-0.7785	-0.8225	-0.3557	-0.2582	-0.2903
	(-0.78)	(-0.65)	(-0.69)	(-0.31)	(-0.22)	(-0.26)
Size	0.4947	0.1619	0.7360	0.6839	0.4683	0.5947
	(0.37)	(0.12)	(0.54)	(0.56)	(0.38)	(0.49)
Leverage	-14.0833***	-13.8256***	-14.4816***	-14.4287***	-13.9360***	-14.9265***
	(-3.21)	(-3.13)	(-3.30)	(-3.29)	(-3.14)	(-3.40)
Free Cash Flow	19.8416	18.7954	19.4381	17.6386	16.0945	17.6757
	(1.30)	(1.23)	(1.27)	(1.17)	(1.05)	(1.17)
Tobin q	9.6396**	9.5464**	9.0407**	8.8843**	8.9252*	8.0290*
	(2.13)	(2.09)	(2.01)	(1.98)	(1.95)	(1.81)
ROA	7.3327	7.2442	6.5141	5.6432	5.4095	5.7744
	(0.58)	(0.56)	(0.51)	(0.44)	(0.42)	(0.46)
MTB	-0.4484**	-0.4411**	-0.4461**	-0.4677**	-0.4588**	-0.4487**
	(-2.15)	(-2.11)	(-2.14)	(-2.24)	(-2.17)	(-2.16)
Constant	10.7819	12.3389	10.4150	12.9715	12.8912	14.3080
	(1.12)	(1.28)	(1.08)	(1.40)	(1.37)	(1.55)
Fixed Effect: Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes
Observations	148	148	148	148	148	148
Adjusted R-squared	0.146	0.135	0.144	0.144	0.125	0.147
The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively. T statistics in parentheses.						

Appendix 9

	Influence of CSR Performance on CAR (-3, 3)								
	Target Firm CAR			Acquirer Firm CAR			Market Value Weighted Portfolio CAR		
CSR Target	0.0096			0.0608			0.0250		
	(0.10)			(1.61)			(0.75)		
ENV Target		0.0170			0.0574*			0.0272	
		(0.23)			(1.91)			(1.02)	
SOC Target			-0.0366			0.0469			0.0238
			(-0.44)			(1.41)			(0.82)
CSR Acquirer	-0.0608			-0.0630			-0.0308		
	(-0.57)			(-1.47)			(-0.82)		
ENV Acquirer		-0.1017			-0.0575			-0.0299	
		(-1.17)			(-1.64)			(-0.97)	
SOC Acquirer			0.0311			-0.0530			-0.0345
			(0.33)			(-1.41)			(-1.05)
CSR Difference	0.0486			-0.0148			-0.0410		
	(0.42)			(-0.32)			(-1.01)		
ENV Difference		0.0814			-0.0023			-0.0240	
		(0.86)			(-0.06)			(-0.71)	
SOC Difference			-0.0353			-0.0206			-0.0346
			(-0.38)			(-0.55)			(-1.06)
Diversifying	-2.9705	-2.6349	-3.1229	0.3077	0.4769	0.4311	-0.5087	-0.4134	-0.4067
(Dummy)	(-0.79)	(-0.70)	(-0.83)	(0.20)	(0.31)	(0.29)	(-0.38)	(-0.31)	(-0.31)
Cash Payment	6.3729*	6.0899	6.9124*	-1.8273	-1.8811	-1.8881	-0.2414	-0.2944	-0.3688
(Dummy)	(1.67)	(1.61)	(1.82)	(-1.20)	(-1.23)	(-1.24)	(-0.18)	(-0.22)	(-0.28)
Bidders	-0.5670	-0.4510	-1.4216	1.3809	0.9371	1.4516	0.1490	-0.0724	0.2353
(Dummy)	(-0.10)	(-0.08)	(-0.25)	(0.62)	(0.42)	(0.64)	(0.08)	(-0.04)	(0.12)
Attitude	-2.5352	-1.3561	-1.3439	-13.3318*	-12.7468*	-13.1815*	-7.9113	-7.9249	-7.8496
(Dummy)	(-0.13)	(-0.07)	(-0.07)	(-1.73)	(-1.66)	(-1.70)	(-1.17)	(-1.17)	(-1.15)
Cross Border	0.3227	0.5851	0.0984	-1.4350	-1.3042	-1.3196	-2.3463**	-2.2602*	-2.2125*
(Dummy)	(0.10)	(0.18)	(0.03)	(-1.07)	(-0.97)	(-0.98)	(-1.99)	(-1.90)	(-1.87)
Relative Deal	-2.8374	-3.1373	-2.1417	-0.5016	-0.4585	-0.2524	2.1609**	2.1736**	2.2363**
Size	(-1.02)	(-1.16)	(-0.79)	(-0.45)	(-0.42)	(-0.23)	(2.22)	(2.25)	(2.36)
Size	3.1482	3.5234	2.3684	0.9659	0.6512	1.0354	-0.2041	-0.4426	-0.1430
	(1.03)	(1.18)	(0.77)	(0.79)	(0.54)	(0.84)	(-0.19)	(-0.42)	(-0.13)
Leverage	9.4245	9.6273	8.7974	-10.3672***	-9.8642**	-10.9739***	-5.0983	-4.5899	-5.5966
	(0.95)	(0.98)	(0.89)	(-2.62)	(-2.48)	(-2.76)	(-1.47)	(-1.31)	(-1.61)
Free Cash Flow	2.9595	4.1901	-0.0924	14.7027	13.8867	13.7852	10.4267	9.5804	10.4527
	(0.09)	(0.12)	(-0.00)	(1.07)	(1.01)	(1.00)	(0.86)	(0.79)	(0.86)
Tobin q	-12.7120	-13.0699	-13.2609	12.3067***	12.4546***	11.3262***	6.6001*	6.8713*	5.8124
	(-1.25)	(-1.28)	(-1.31)	(3.03)	(3.02)	(2.78)	(1.84)	(1.89)	(1.63)
ROA	2.6995	4.0990	1.4910	15.0532	15.4435	14.0244	10.0771	10.3257	9.7381
	(0.09)	(0.14)	(0.05)	(1.31)	(1.34)	(1.22)	(1.00)	(1.01)	(0.97)
MTB	1.3950***	1.4073***	1.3881***	-0.3937**	-0.3859**	-0.3840**	0.0140	0.0188	0.0276
	(2.96)	(2.99)	(2.95)	(-2.09)	(-2.03)	(-2.04)	(0.08)	(0.11)	(0.17)
Constant	4.6396	3.2313	10.6114	1.0893	1.9690	2.0479	10.6076	10.7407	11.1404
	(0.21)	(0.15)	(0.48)	(0.12)	(0.23)	(0.23)	(1.38)	(1.40)	(1.44)
Fixed Effect: Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	148	148	148	148	148	148	148	148	148
Adjusted R-squared	0.112	0.121	0.109	0.202	0.191	0.193	0.178	0.163	0.177

The symbol *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.
T statistics in parentheses.