



## University of Groningen

# Is corporate social responsibility an agency problem? An empirical note from takeovers

Hussaini, Mussa; Hussain, Nazim; Nguyen, Duc; Rigoni, Ugo

Published in: **Finance Research Letters** 

DOI: 10.1016/j.frl.2021.102007

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version Publisher's PDF, also known as Version of record

Publication date: 2021

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA): Hussaini, M., Hussain, N., Nguyen, D., & Rigoni, U. (2021). Is corporate social responsibility an agency problem? An empirical note from takeovers. *Finance Research Letters*, *43*, [102007]. https://doi.org/10.1016/j.frl.2021.102007

Copyright Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: https://www.rug.nl/library/open-access/self-archiving-pure/taverneamendment.

#### Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): http://www.rug.nl/research/portal. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Contents lists available at ScienceDirect







journal homepage: www.elsevier.com/locate/frl

# Is corporate social responsibility an agency problem? An empirical note from takeovers



Mussa Hussaini<sup>a</sup>, Nazim Hussain<sup>b,c</sup>, Duc Khuong Nguyen<sup>c,d,\*</sup>, Ugo Rigoni<sup>e</sup>

<sup>a</sup> School of Business, Economics and Law, University of Gothenburg, Göteborg, Sweden

<sup>b</sup> Faculty of Economics and Business, University of Groningen, Groningen, the Netherlands

<sup>c</sup> IPAG Business School, 184 Boulevard Saint Germain, 75006 Paris, France

<sup>d</sup> International School, Vietnam National University, Hanoi, Vietnam

<sup>e</sup> Department of Management, Università Ca' Foscari - Venezia, Venice, Italy

ARTICLE INFO

Keywords: CSR performance Acquirers Takeover premium Agency problems

#### ABSTRACT

We rely on the agency motives of the takeover premium to empirically examine whether and how the acquirer's corporate social responsibility (CSR) performance influences the premiums paid in takeovers. Using a large sample of US takeovers that took place over the period from 1992 to 2014, our results mainly reveal that higher CSR performance at the acquirer level is associated with higher takeover premium which is consistent with the shareholder expense view. Our results continue to hold after a battery of additional analyses.

#### 1. Introduction

Corporate social responsibility (CSR) performance and motives have been in the spotlight for empirical research for decades. The overarching research question is that why firms would invest significant resources in CSR practices. The stakeholder view maintains that CSR practices and profit are not mutually exclusive. Based upon this view, firms investing more in CSR would meet the requirements of various stakeholders which ultimately would be beneficial for the focal firms' shareholders (Aktas et al., 2011; Arouri et al., 2019; Deng et al., 2013; Ferrell et al., 2016; Gomes and Marsat, 2018; Wong et al., 2020). However, the shareholder expense view holds that CSR practices manifest an agency problem between managers and shareholders. In other words, managers commit to CSR activities to build reputation and gain private benefits (Harper and Sun, 2020; Jiraporn and Chintrakarn, 2013; Surroca and Tribó, 2008).

These opposing views have produced mixed results as to the impact of CSR on firm valuation. They thus lead to an important empirical question about which theory is borne out in reality and provides a warrant for further investigation. In this study, we contribute to this debate and shed light on the issue by focusing on takeovers, in which conflict of interests between managers and shareholders can potentially exacerbate. More specifically, we empirically examine how acquirer's CSR performance influences the takeover premium.

Acquirers pay a large premium over the market value of the target to gain control. Prior research suggests that, on average, the premium paid to target amounts to 40% to 50% (Eckbo, 2009; Fralich and Papadopoulos, 2018). It is axiomatic that the higher the premium, the lower the ultimate returns to the acquirer from a given acquisition (Datta et al., 2001; Haunschild, 1994; Hayward and

\* Corresponding author:

https://doi.org/10.1016/j.frl.2021.102007

Received 20 December 2020; Received in revised form 1 March 2021; Accepted 4 March 2021 Available online 5 March 2021 1544-6123/© 2021 Elsevier Inc. All rights reserved.

*E-mail addresses*: mussa.hussaini@gu.se (M. Hussaini), n.hussain@rug.nl (N. Hussain), duc.nguyen@ipag.fr (D.K. Nguyen), rigons@unive.it (U. Rigoni).

#### M. Hussaini et al.

Hambrick, 1997; Varaiya and Ferris, 1987). Agency issues at the acquirer level has been one of the prevailing explanations for the large premium payments. Managers pay huge premium to increase firm size, diversify the business, and make themselves irreplaceable (Shleifer and Vishny, 1988). Thus, the high premium paid is not a valuation error but to reap personal benefits from takeovers by managers. Consistent with this view, Gondhalekar et al. (2004) find that agency problem at the acquirer level is the main determinant of the high premium paid in takeovers. Accordingly, when compensations and corporate governance board oversight are designed in such a way that potentially align the managers' interests with those of shareholders' interests, lower premium is paid for the target (Bargeron et al., 2008; Datta et al., 2001; Levi et al., 2014).

Whether and to what extent acquirer's CSR performance is associated with the takeover premium is an important question and has significant value implications for both acquirer and target shareholders. In a notable study, Krishnamurti et al. (2019) use a sample of 149 Australian takeovers and find that acquirers with high CSR performance tend to pay lower premium. Our study differs, however, from them in at least two main aspects. First, we consider takeovers that took place in the United States where corporate regulations, societal preferences, and institutional variables with regard to CSR performance are significantly different as compared to Australia. Since these factors vary from country to country (Liang and Renneboog, 2017), the obtained results from one country may not be generalizable to other countries. Second, our study distinguishes between CSR strengths and concerns as they are different constructs (Bouslah et al., 2013; Mattingly and Berman, 2006). While these studies employ CSR performance measures given by Thomson Reuters Assets4, we use CSR performance ratings given by MSCI ESG Research formerly known as Kinder, Lydenberg, and Domini (KLD). CSR performance rating agencies do not follow the same metric and criteria in measuring the firms' CSR performance and thus using different sources of ratings could provide more evidence on the link between acquirers' CSR performance and M&A activities.

We argue that if CSR practices are voluntary initiatives with a conflict resolution objective among stakeholders while increasing shareholders value, firms with high CSR performance would have lower agency problems. Therefore, we would expect them to opt for value-maximizing investments and accordingly pay lower premium, ceteris paribus. However, if CSR activities are manifestation of the agency problem and managers use them to build reputation and gain private benefits, then we would expect that firms with high CSR performance would further take non-value-maximizing investments and pay higher takeover premium.

To examine these competing predictions, we use a sample of 564 US completed takeover transactions that took place between publicly listed firms over the period of 1992 to 2014. Our results reveal that higher CSR performance at the acquirer level is associated with higher takeover premium which is consistent with the shareholder expense view and in contrast with those reported by Krishnamurti et al. (2019). Our results continue to hold under different specifications and alternative measurements of our main variables.

To address the potential concerns related to the endogenous choice of CSR performance, we use the Propensity Score Matching method. Our findings from the Propensity Score Matching analysis suggests that acquirers with higher CSR performance pay higher

#### Table 1

Variables' Definitions.

Variable	Definition/Measure
Dromium	The difference between the final price paid for the target chare and the target chare price 4 weeks prior to the takeover approximate
Fichinum	livided by the latter
Acquirer CSR	acquirer firm sum of all strengths score across all six categories of ESG (environment, community, employee relations, diversity, product,
Strengths	and governance) divided by 6.
Acquirer CSR	Acquirer firm sum of all concerns score across all six categories of ESG (environment, community, employee relations, diversity, product,
Concerns	and governance) divided by 6.
Acquirer FCF	Operating income before depreciation minus interest expenses, taxes, preferred dividend, and common dividend divided by book value of
*	total assets in the fiscal year before the takeover announcement.
Acquirer MTB	Acquirer number of common shares outstanding multiplied by its share price divided by its book value of equity in the fiscal year before the
	takeover announcement.
Acquirer Size	Log of total assets in the fiscal year before the takeover announcement.
Acquirer Leverage	Total long-term debt divided by total assets in the fiscal year before the takeover announcement.
Acquirer Analyst	Maximum number of analysts who provide an estimation of EPS in any month in the most recent fiscal year prior to the deal announcement
	in the year before the takeover announcement from I/B/E/S
Acquirer Stock	Acquirer's share price 28 business days before the deal announcement minus acquirer share price 154 business days before the deal
Return	announcement divided by acquirer share price 154 business days before the deal announcement.
Acquirer Age	Age is computed as one plus the difference between the year under investigation and the first year the firm appears on the COMPUSTAT
	database.
Target MTB	Number of common shares outstanding multiplied by share price divided by the book value of equity in the fiscal year before the takeover
	announcement.
Relative Size	Target total assets divided by acquirer total assets in the fiscal year before the takeover announcement.
Target Leverage	Total long-term debt divided by total assets in the fiscal year before the takeover announcement.
Target Analyst	Maximum number of analysts who provide an estimation of EPS in any month in the most recent fiscal year prior to the deal announcement
m (01 0 1	in the year before the takeover announcement from 1/B/E/S.
Target Sales Growth	(target sales in year t minus target sales in year t-1)/target sales in year t, where t is the fiscal year prior to the deal announcement.
Target R&D	R&D investment divided by total assets in the fiscal year before the takeover announcement.
Target in High Tech	indicator variable that takes the value of 1 if the target is in the nigh-tech industry.
Related	indicator variable that takes the value of 1 if the acquirer and target share the same two-digit SiC codes.
Same State	indicator variable that takes the value of one if the acquirer and target are in the same state in the US. The state that acquirer and target are
Cash Only	Indicates given in the monstain Returns Endon MacA database.
Stock Only	Indicator variable that takes the value of 1 if the method of payment is stock only.
SIDCK UIIIY	multator variable that takes the value of 1 if the method of payment is stock only.

premium relative to comparable acquirers with lower CSR performance. Accordingly, this study provides novel insights into the literature by showing how the acquirer CSR performance affects the premium paid in takeovers.

#### 2. Sample and research design

Our sample consists of completed US domestic takeovers between listed firms over the period of 1992 to 2014 and are recorded in Thomson Reuters' Eikon M&A database. Following Dionne et al. (2015), we include transactions that are in the forms of: merger, acquisition of assets, acquisition of major assets, and acquisition of certain assets. Further, we needed acquirer to own less than 5% of the target's shares before the deal announcement and more than 50% after the deal completion, the method of payment to be in the form of cash, stock, or a mix of cash and stock, and finally, the purchase price to be available. Accounting and stock price data are collected from COMPUSTAT and Center for Research in Security Prices (CRSP), respectively. Finally, CSR performance rating data are collected from MSCI ESG rating. Our final sample comprises of 564 deals with all the required information available.

We examine the influence of acquirer CSR performance on the takeover premium by estimating the following ordinary least squares model:

$$Premium_i = \alpha + \beta X_i + \gamma Z_i + \eta Industry.FE + \eta Year.FE + \varepsilon_i$$
(1)

Premium is defined as the difference between the final price paid for the target share and the target share price 4 weeks prior to the takeover announcement divided by the latter (Haunschild, 1994; Hayward and Hambrick, 1997).

 $X_i$  is a vector of our variables of interest which are acquirer CSR strengths (high CSR performance) and CSR concerns (low CSR performance). We measure acquirer CSR performance based on strengths and concerns ratings of the six qualitative issue areas including environment, community, employee relations, diversity, product, and governance. Prior studies argue that CSR strengths and concerns should not be aggregated to build an overall CSR performance because they are two different constructs (see, e.g., Bouslah et al., 2013; Mattingly and Berman, 2006). Accordingly, we first sum all ratings for strength or concern indicators in each qualitative issue area and scale them by the maximum possible number of strength or concern indicators in that specific CSR category. Then, to calculate the overall CSR aggregate strengths and concerns, we add all the strength and concern scores across all qualitative issue areas constructed prior and divide it by six, the number of qualitative issue areas (Oikonomou et al., 2012).

 $Z_i$  is a vector of control variables that prior studies have documented to influence the takeover premium. The definitions and measurement of these variables are given in Table 1. While Table 2 provides sample distribution across years, Table 3 reports univariate statistics. All the continuous variables are winsorized at the 1st and 99th percentiles.

#### 3. Results

Table 4 reports the main regression results of Eq. (1). All models include year and industry dummies to control for unobserved macroeconomic factors. Given our concern regarding multicollinearity in our regression models, we examined the variance inflation factor (VIF). We include VIFs for each model at the bottom of the regression table. All VIFs are within the acceptable range. The highest VIF is 2.6, which is well below the conventional rule of thumb of 10 (Neter et al., 1996) and a more conservative factor of 5. We conclude that multicollinearity is not a concern in our results. Column 1 includes only control variables, signs of which are in line with prior studies. In Column 2, the coefficient of acquirer CSR strengths is positive and statistically significant at the 1% level, while acquirer's CSR concerns are insignificant. This result implies that higher CSR performance at the acquirer level is associated with higher takeover premium which is consistent with the shareholder expense view. From an economic perspective, the result suggests that a one standard deviation increase in acquirer CSR strengths is associated with a 5.61% increase in the takeover premium which is substantially large. A possible explanation of our findings is the fact that executives of the acquiring firms may choose to improve the CSR scores as much as they can in order to increase their reputation in the expense of the shareholders. Furthermore, in line with the shareholder expense view, our results depict that CSR engagement is not a shareholder choice but management's seek of personal objectives (Hubbard et al., 2017).

We perform a battery of additional analyses to make sure that our results are robust. First, it is likely that the results of the study would be biased by particular behavior characterizing the period of economic distress. Therefore, we run our analyses after the exclusion of takeovers that took place during financial crisis period. Second, we exclude transactions in which either acquirer or target belongs to the financial industry. Finally, we exclude transactions in which the acquirer's CSR performance, across both strengths and concerns, is zero. As shown in Table 4 (Column 3 to 5), our main results continue to hold under these different specifications.

To further corroborate the novel results reported in Table 4, and address the potential concerns related to the endogenous choice of CSR performance, we perform additional analysis based on the Propensity Score Matching method. We estimate the Average Treatment Effect on the Treated (ATT) on groups of comparable acquirers. We regard those acquirers whose CSR performances are above the sample median as our treatment group and those acquirers whose CSR performances are below the sample median as our control group. Similar to Adra and Barbopoulos (2019) and Gomes (2019) we follow a two-step approach. First, we estimate the propensity score from a logit model. Panel A in Table 5 shows the results of this logit model. The probability of acquirer having high CSR performance is a function of (1) acquirer free cash flow (2) acquirer market-to-book (3) acquirer size (4) acquirer leverage (5) acquirer analyst coverage (6) acquirer stock returns (7) acquirer age and (8) industry effect. Second, we extract the predicted probability from the logit model. Each acquirer with high CSR performance then matched with one low CSR performance acquirer within a small caliper of 0.01. We use matching with replacement, whereby each observation in the control group can be chosen as a match more than once.

Tabl	e 2	
------	-----	--

Year	No. of Deals	Percent	Acquirer CSR Strengths	Acquirer CSR Concerns	Premium	Related
1992	2	0.0035	0.0556	0.0000	0.5008	2
1993	2	0.0035	0.0000	0.0000	0.2330	2
1994	5	0.0089	0.0484	0.0483	0.7177	2
1995	4	0.0071	0.0550	0.0764	0.6175	0
1996	6	0.0106	0.0553	0.1162	0.4355	4
1997	9	0.0160	0.0586	0.0407	0.4665	2
1998	8	0.0142	0.0563	0.0667	0.8781	4
1999	27	0.0479	0.1062	0.0981	0.5803	12
2000	16	0.0284	0.0947	0.0618	0.5067	8
2001	14	0.0248	0.0776	0.0885	0.5765	10
2002	17	0.0301	0.0717	0.1067	0.5963	14
2003	17	0.0301	0.0824	0.1131	0.3864	12
2004	40	0.0709	0.0424	0.0581	0.3706	24
2005	41	0.0727	0.0796	0.1107	0.3374	28
2006	49	0.0869	0.0914	0.0965	0.3370	25
2007	45	0.0798	0.0842	0.0737	0.2855	26
2008	31	0.0550	0.0912	0.1028	0.5338	22
2009	31	0.0550	0.1350	0.1060	0.5637	18
2010	49	0.0869	0.0894	0.1150	0.5514	35
2011	22	0.0390	0.1028	0.1366	0.3462	17
2012	38	0.0674	0.1376	0.1177	0.4451	22
2013	39	0.0691	0.0989	0.0327	0.4341	31
2014	52	0.0922	0.0974	0.0545	0.4110	42
Total	564	1.0000	0.0904	0.0875	0.4465	362

#### Table 3

Descriptive Statistics.

Variable	Ν	Mean	St. Dev.	Min	Pctl(25)	Median	Pctl(75)	Max
Premium	564	0.45	0.37	-0.17	0.23	0.36	0.59	2.15
Acquirer CSR Strengths	564	0.09	0.12	0	0	0.05	0.11	0.49
Acquirer CSR Concerns	564	0.09	0.08	0	0.03	0.06	0.12	0.34
Acquirer FCF	564	0.08	0.06	-0.1	0.03	0.08	0.12	0.27
Acquirer MTB	564	4	4.17	0.62	1.77	2.77	4.2	26.15
Acquirer Size	564	3.87	0.74	2.18	3.37	3.88	4.4	5.44
Acquirer Leverage	564	0.16	0.15	0	0.05	0.14	0.23	0.68
Acquirer Analyst	564	17.4	10.34	0	9	16	24	54
Acquirer Stock Return	564	0.07	0.19	-0.35	-0.05	0.05	0.19	0.63
Acquirer Age	564	27.41	14.98	2	15	26	40.25	87
Target MTB	564	2.81	3.19	-8.96	1.28	2.04	3.42	17.1
Relative Size	564	0.2	0.31	0	0.02	0.1	0.3	2
Target Leverage	564	0.14	0.19	0	0	0.06	0.22	0.86
Target Analyst	564	6.87	6.9	0	2	5	10	42
Target Sales Growth	564	0.18	0.48	-0.49	-0.01	0.08	0.22	3.08
Target R&D	564	0.07	0.12	0	0	0.01	0.1	0.63
Target High Tech	564	0.23	0.42	0	0	0	0	1
Related	564	0.64	0.48	0	0	1	1	1
Same State	564	0.22	0.41	0	0	0	0	1
Cash Only	564	0.57	0.5	0	0	1	1	1
Stock Only	564	0.22	0.41	0	0	0	0	1

In a matched sample including 197 treated and 197 control observations, as Panel B (Table 5) shows, the resulting ATT estimate is 7.8 percentage points and statistically significant at the 1% level. This evidence supports the view that after balancing the key covariates, acquirers with higher CSR performance pay higher premium relative to comparable acquirers with lower CSR performance. Panel C (Table 5) demonstrates the success of the matching in balancing the key covariates in the analysis. More specifically, none of the differences in means of the covariates between treated and control group appear statistically significant after matching.

Finally, we test for alternate measures of premium, our dependent variable, and acquirer CSR performance, our main independent variable to examine how sensitive our results are to the choice of the measures. More specifically, premium is defined as the difference between the final price paid for the target share and the target share price one week prior to the takeover announcement divided by the latter. Further, we use the measure of the overall acquirer CSR performance which is the difference between total CSR strengths and concerns. The un-tabulated extra analyses, using these alternative measures, yielded consistent results, which indicates that our earlier

#### Table 4

#### Multivariate Analyses.

	OLS Regression Models					
	Dependent Variable	= Premium				
	Controls only	Main Model	Non-Crisis	Non-Financial	Non-Zero-CSR	
Constant	0.6783***	0.8055***	0.8817***	0.7218**	0.7502***	
	(2.8492)	(3.2558)	(3.9307)	(2.4270)	(3.0148)	
Acquirer CSR Strengths		0.4681***	0.4998***	0.3814*	0.4895***	
		(2.7265)	(3.0321)	(1.9585)	(2.9012)	
Acquirer CSR Concerns		0.0074	-0.0279	0.1321	0.0129	
		(0.0313)	(-0.1193)	(0.5140)	(0.0540)	
Acquirer FCF	-0.2886	-0.3118	-0.5225	-0.3491	-0.1735	
	(-0.6478)	(-0.7022)	(-1.4886)	(-0.7204)	(-0.3845)	
Acquirer MTB	0.0012	0.0003	-0.0002	0.0021	-0.0008	
	(0.2888)	(0.0627)	(-0.0520)	(0.4978)	(-0.1791)	
Acquirer Size	0.0304	-0.0177	-0.0453	0.0068	-0.0111	
	(0.7878)	(-0.3897)	(-1.1153)	(0.1249)	(-0.2440)	
Acquirer Leverage	-0.141	-0.1112	-0.0565	-0.1545	-0.118	
	(-1.2152)	(-0.9638)	(-0.5116)	(-1.1725)	(-0.9802)	
Acquirer Analyst	-0.0046*	-0.0040*	-0.0032	-0.0063**	-0.0055 **	
	(-1.9260)	(-1.6517)	(-1.3799)	(-2.2355)	(-2.2464)	
Acquirer Stock Return	-0.1009	-0.0924	-0.006	-0.1096	-0.0846	
	(-1.0619)	(-0.9704)	(-0.0695)	(-1.0359)	(-0.8439)	
Acquirer Age	-0.0004	-0.0009	0.0003	-0.0023	-0.0006	
	(-0.3115)	(-0.6086)	(0.2112)	(-1.4881)	(-0.4040)	
Target MTB	$-0.0102^{**}$	-0.0094*	-0.0063	-0.0096*	-0.0076	
	(-1.9978)	(-1.8487)	(-1.2598)	(-1.8273)	(-1.4835)	
Relative Size	-0.0582	-0.0669	-0.0735	-0.0783	-0.0514	
	(-0.9766)	(-1.1434)	(-1.5285)	(-1.0474)	(-0.8816)	
Target Leverage	0.1758*	0.1805*	0.1465*	0.1506	0.1863*	
	(1.6614)	(1.6908)	(1.6520)	(1.2314)	(1.6673)	
Target Analyst	-0.0026	-0.0032	-0.002	-0.0016	-0.0031	
	(-1.0100)	(-1.2476)	(-0.8389)	(-0.5859)	(-1.1777)	
Target Sales Growth	-0.0073	-0.008	-0.0158	-0.0014	-0.0021	
	(-0.2157)	(-0.2464)	(-0.5889)	(-0.0481)	(-0.0626)	
Target R&D	1.0242***	0.9805***	0.8976***	0.9427***	1.0305***	
	(4.2015)	(4.1688)	(4.3627)	(3.9999)	(4.2608)	
Target High Tech	-0.0644	-0.0695	-0.0751*	-0.0816	-0.0614	
	(-1.3572)	(-1.4818)	(-1.6887)	(-1.6292)	(-1.2839)	
Related	-0.0214	-0.0188	-0.0186	0.023	-0.0174	
	(-0.6012)	(-0.5295)	(-0.5441)	(0.6380)	(-0.4798)	
Same State	0.0175	0.0219	0.0379	-0.0322	0.0271	
	(0.5471)	(0.6901)	(1.1965)	(-0.8012)	(0.8383)	
Cash Only	0.0319	0.0338	0.043	0.0488	0.0346	
	(0.7106)	(0.7612)	(0.9912)	(1.1171)	(0.7578)	
Stock Only	0.0196	0.0273	0.0163	0.0672	0.0257	
	(0.3841)	(0.5374)	(0.3617)	(0.7966)	(0.4958)	
Year Effect	Yes	Yes	Yes	Yes	Yes	
Industry Effect	Yes	Yes	Yes	Yes	Yes	
Observations	564	564	518	430	528	
Adjusted R <sup>2</sup>	0.1678	0.1753	0.1668	0.195	0.1813	
F Statistic	2.24/6***	2.2866***	2.149/***	2.2083***	2.2967***	
Maximum VIF	2.24	2.6	2.6	2.57	2.6	

This table represents the results of the ordinary least squares regression models. All the continuous variables are winsorized at the 1st and 99th percentile. t-statistics, calculated using White heteroscedasticity-consistent standard errors, are reported in parentheses, while \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

findings are robust.<sup>1</sup>

### 4. Conclusion

Motivated by the opposing views and inconclusive findings as to the impact of CSR on firm valuation, we study how acquirer CSR performance is associated with the premium paid in takeovers. According to the agency motive of the takeover premium, stakeholder view predicts a negative association between acquirer CSR performance and the takeover premium, whereas shareholder expense view predicts a positive association. Using a sample of 564 US completed takeover deals that took place between publicly held firms over the period of 1992 to 2014, we document a positive association between acquirer CSR performance and the premium paid in takeovers

<sup>&</sup>lt;sup>1</sup> The results of these additional analyses are not reported but are available upon request.

#### Table 5 Matching Analysis.

Panel A: Logit model										
(Intercept)	Acquire FCF	Acquirer MTB	Acquirer Size	Acquirer Leverage	Acquirer Analyst	Acquirer Stock Return	Acquirer Age	Industry Effect	Ν	Pseudo R-Squared
15.1117	7.8214***	0.0141	0.1004	1.7794**	0.0039	0.3366	0.0167*	Yes	564	0.1896
(0.004)	(3.271)	(0.45)	(0.391)	(2.069)	(0.243)	(0.612)	(1.837)			
Panel B: Mat	ching outcome									
Matching alg	gorithm									Caliper
Caliper										0.01
Matched obs	ervations per trea	ated firm								1:1
Original nun	nber of observation	ons								564
Original nun	nber of treated of	oservations								282
Matched nur	nber of observati	ons								197
ATT (%) (At	adie & Imbens (2	2006)								7.8365%***
Standard err	ors)									0.0299
Panel C: Bala	ancing of the cov	ariates								
				Before matching				After matching		
				Treatment Group	Control Group	P-value (difference)		Treatment Group	Control Group	P-value (difference)
Acquirer FCI	F			0.0840	0.0683	0.0032		0.0733	0.0756	0.6856
Acquirer MT	В			4.2667	3.7262	0.1238		3.6013	3.8916	0.4274
Acquire Size				3.9347	3.7978	0.0270		3.9137	3.996	0.1772
Acquirer Lev	rerage			0.1627	0.1628	0.9886		0.1416	0.1481	0.6114
Acquirer An	alyst			18.294	16.507	0.0399		17.609	17.282	0.7334
Acquirer Stock Return				0.0647	0.0702	0.7297		0.0661	0.0568	0.6146
Acquirer Age	e			28.943	25.887	0.0152		28.305	28.074	0.8669

This table represents the results of the Propensity Score Matching analysis that estimates the effect of acquirer CSR performance on the takeover premium. Panel A reports the Logit model that is used to estimate the propensity scores. The dependent variable is a binary variable that takes the value of 1 if the acquirer CSR performance is above the sample median and zero otherwise. Panel B reports the outcome of the matching analysis. Panel C reports the differences in means of the covariates used in the matching process between treated and control group before and after the matching. Symbols \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

6

#### M. Hussaini et al.

which is consistent with the shareholder expense view. Our results continue to hold when we employ alternative measures of premium and acquire CSR performance and test different specifications. Furthermore, to minimize the endogeneity concern with our results, we execute a propensity score matching analysis and our evidence proves to be consistent.

Our study thus contributed to the growing literature on the association between CSR and shareholders' value maximization in the context of takeovers. In line with the shareholder expense view, our results depict that CSR engagement is not a shareholder choice but management's seek of personal objectives. Furthermore, while prior studies mostly focus on market reactions, we directly examine how heterogeneity with respect to CSR performance at the acquirer level determines acquirers' decisions and strategies across an important takeover dimension, i.e., takeover premium. Finally, our findings complement the results reported by Krishnamurti et al. (2019) in that we shed additional light on the linkage between CSR and takeover premium of the US takeovers. This advances our understanding about the fact that different regulations, societal preferences, and institutional factors may derive varying effects of CSR on shareholders' value.

Like any empirical study, some limitations apply, which in turn present a number of additional avenues for future research. For instance, it would be interesting to examine how the acquirer CSR performance influences takeover propensity among other relevant factors. Another important issue is how acquirer CSR performance interacts with governance mechanisms at the firm and country levels, in affecting the various takeover terms. Finally, future research could explore the wealth implication of the acquirer CSR performance in takeovers conditional on the level of premium paid.

#### **Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### Acknowledgments

We are grateful to Professor Jonathan Batten (the Co-Editor-in-Chief) and the two anonymous referees for helpful comments and remarks that have greatly improved the quality of our manuscript. The first author, Mussa Hussaini, gratefully acknowledges the financial support from the Tore Browaldh Foundation.

#### References

- Abadie, A., Imbens, G.W., 2006. Large Sample Properties of Matching Estimators For Average Treatmennt Effects. Econometrica 74 (1), 235–267. Retrieved from. http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0262.2006.00655.x/abstract.
- Adra, S., Barbopoulos, L.G., 2019. Liquidity and Information Asymmetry Considerations in Corporate Takeovers. Eur. J. Finance 25 (7), 724–743. https://doi.org/ 10.1080/1351847X.2018.1543202.
- Aktas, N., de Bodt, E., Cousin, J.G., 2011. Do Financial Markets Care About SRI? Evidence From Mergers and Acquisitions. J. Banking Finance 35 (7), 1753–1761. https://doi.org/10.1016/j.jbankfin.2010.12.006.
- Arouri, M., Gomes, M., Pukthuanthong, K., 2019. Corporate social responsibility and M&A uncertainty. J. Corp. Finance 56, 176–198. https://doi.org/10.1016/j. jcorpfin.2019.02.002.

Bargeron, L.L., Schlingemann, F.P., Stulz, R.M., Zutter, C.J., 2008. Why Do Private Acquirers Pay So Little Compared to Public Acquirers? J. financ. Econ. 89 (3), 375–390. https://doi.org/10.1016/j.jfineco.2007.11.005.

Bouslah, K., Kryzanowski, L., M'Zali, B, 2013. The Impact of the Dimensions of Social Performance on Firm Risk. J. Banking Finance 37 (4), 1258–1273. https://doi.org/10.1016/j.jbankfin.2012.12.004.

Datta, S., Iskandar-Datta, M., Raman, K., 2001. Executive Compensation and Corporate Acquisition Decisions. J. Finance 56 (6), 2299–2336. https://doi.org/ 10.1111/0022-1082.00406.

Deng, X., Kang, J., koo, Low, B.S., 2013. Corporate Social Responsibility and Stakeholder Value Maximization: evidence From Mergers. J. financ. Econ. 110 (1), 87–109. https://doi.org/10.1016/j.jfineco.2013.04.014.

Dionne, G., La Haye, M., Bergerès, A.S., 2015. Does Asymmetric Information Affect the Premium in Mergers and Acquisitions? Canadian J. Econ. 48 (3), 819–852. https://doi.org/10.1111/caje.12159.

Eckbo, B.E., 2009. Bidding Strategies and Takeover Premiums: a review. J. Corp. Finance 15 (1), 149–178. https://doi.org/10.1016/j.jcorpfin.2008.09.016.

Ferrell, A., Liang, H., Renneboog, L., 2016. Socially Responsible Firms. J. financ. Econ. 122 (3), 585–606. https://doi.org/10.1016/j.jfineco.2015.12.003.
Fralich, R., Papadopoulos, A., 2018. The financial crisis, acquisition premiums and the moderating effect of CEO power. Long Range Plann. 51 (2), 204–218. https://doi.org/10.1016/j.jrp.2017.08.004.

Gomes, M., 2019. Does CSR influence M&A target choices? Finance Res. Lett. 30, 153-159. https://doi.org/10.1016/j.frl.2018.09.011.

Gomes, M., Marsat, S., 2018. Does CSR Impact Premiums in M&A Transactions? Finance Res. Lett. 26, 71–80. https://doi.org/10.1016/j.frl.2017.12.005. Gondhalekar, V.B., Sant, R.R., Ferris, S.P., 2004. The Price of Corporate Acquisition: determinants of Cash Takeover Premia. Appl. Econ. Lett. 11 (12), 735–739.

https://doi.org/10.1080/1350485042000254601. Harper, J., Sun, L., 2020. Environmental Performance and Corporate Cash Holdings. Appl. Econ. Lett. 27 (15), 1234–1237. https://doi.org/10.1080/

13504851.2019.1676381. Haunschild, R.R., 1994. How Much is that Company Worth ?: interorganizational Relationships, Uncertainty, and Acquisition Premiums. Adm. Sci. Q. 39 (3),

Haunschud, K.K., 1994. How Much is that Company Worth 7: Interorganizational Relationships, Oncertainty, and Acquisition Preinfums. Adm. Sci. Q. 59 (5), 391–411. https://doi.org/10.2307/2393296.

Hayward, M.L.A., Hambrick, D.C, 1997. Explaining the Premiums Paid for Large Acquisitions : evidence of CEO Hubris. Adm. Sci. Q. 42 (1), 103–127. https://doi.org/10.2307/2393810.

Hubbard, T.D., Christensen, D.M., Graffin, S.D., 2017. Higher Highs and Lower Lows: the Role of Corporate Social Responsibility in CEO Dismissal. Strategic Manage. J. 38, 2255–2265. https://doi.org/10.1002/smj.2646.

Jiraporn, P., Chintrakarn, P., 2013. How Do Powerful CEOs View Corporate Social Responsibility (CSR)? An Empirical Note. Econ. Lett. 119 (3), 344–347. https://doi. org/10.1016/j.econlet.2013.03.026.

Krishnamurti, C., Shams, S., Pensiero, D., Velayutham, E., 2019. Socially Responsible Firms and Mergers and Acquisitions Performance: australian Evidence. Pacific-Basin Finance J. 57, 101193 https://doi.org/10.1016/J.PACFIN.2019.101193.

Levi, M., Li, K., Zhang, F., 2014. Director Gender and Mergers and Acquisitions. Journal of Corporate Finance 28, 185–200. https://doi.org/10.1016/j. jcorpfin.2013.11.005.

Liang, H., Renneboog, L., 2017. On the Foundations of Corporate Social Responsibility. J. Finance 72 (2), 853–910. https://doi.org/10.1111/jofi.12487.
Mattingly, J.E., Berman, S.L., 2006. Measurement of Corporate Social Action: discovering Taxonomy in the Kinder Lydenburg Domini Ratings Data. Bus. Soc. 45 (1), 20-46. https://doi.org/10.1177/0007650305281939.

Neter, J., Kutner, M., Nachhtsheim, C., Wasserman, W., 1996. Applied Linear Statistcal Models, 4th ed. McGraw-Hill/Irwin, Chicago. McGraw-Hill/Irwin, Oikonomou, I., Brooks, C., Pavelin, S., 2012. The Impact of Corporate Social Performance on Financial Risk and Utility: a Longitudinal Analysis. Financ. Manage. 41 (2), 483–515. https://doi.org/10.1111/j.1755-053X.2012.01190.x.

Shleifer, A., Vishny, R.V., 1988. Value Maximization and the Acquisition Process. J. Econ. Perspetives 2 (1), 7–20. https://doi.org/10.1257/jep.2.1.7.
Surroca, J., Tribó, J.A., 2008. Managerial Entrenchment and Corporate Social Performance. J. Bus. Finance Accounting 35 (5–6), 748–789. https://doi.org/10.1111/ j.1468-5957.2008.02090.x.

 Varaiya, N.P., Ferris, K.R., 1987. Overpaying in Corporate Takeovers: the Winner's Curse. Financial Anal. J. 43 (3), 64–70. https://doi.org/10.2469/faj.v43.n3.64.
 Wong, W.C., Batten, J.A., Ahmad, A.H., Mohamed-Arshad, S.B., Nordin, S., Adzis, A.A., 2020. Does ESG certification add firm value? Finance Res. Lett., 101593 https://doi.org/10.1016/j.frl.2020.101593.