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## Market reaction to the effect of corporate social responsibility on mergers and acquisitions: Evidence on emerging markets

Tze-Yu Yen <sup>a,\*</sup>, Paul André <sup>b</sup>

<sup>a</sup> Department of Finance, National Chung Cheng University, 168 University Rd., Min-Hsiung, Chia-Yi, 62102, Taiwan

<sup>b</sup> HEC Lausanne, UNIL-Dorigny, Anthropole, Lausanne, 1015, Switzerland

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### ABSTRACT

This cross-country study examines a large sample of 1986 merger and acquisition (M&A) deals in 23 emerging market (EM) countries between 2008 and 2014 to investigate market reactions to deal announcements regarding the acquiring firms with different levels of pre-merger corporate social responsibility (CSR) performance and under different degrees of agency cost concerns. We find that, neither positive stakeholder nor negative shareholder view alone can explain the CSR effects. The effects of CSR performance on market reactions to M&As depend mainly on the cost-benefit concerns of investors. While a higher level of acquirers' pre-merger CSR performance could be helpful in conducting cross-border deals, market reactions to the CSR effects on such overseas deals still depend directly on the CSR cost concerns rather than indirectly on the CSR interests for deal efficiency. Evidence also shows that investors' CSR cost concerns arise mainly from EM acquirers' agency problems that could be effectively eased by country-level legal institutions rather than by firm-level governance mechanisms. Market investors with CSR agency concerns would not consider acquirers' pre-merger CSR performance as a signal for investment during the deal announcement period, and that related CSR agency costs do impair the financial performance after the merger. Additionally, we confirm that the better governance quality of targets' nations compared with that of acquirers' nation is not valued by the market investors but significantly leads to the better long-term operating performance. Furthermore, we propose an argument disputing the conclusions of previous research that consider emerging countries collectively as examples of weak governance quality.

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## 1. Introduction

In recent years, enterprises have vigorously put resources into corporate social responsibility (CSR) in order to enhance their corporate images, shift the interaction with stakeholders, and strengthen investors' confidence. However, can CSR treat altruism as the starting point and achieve the corporate goal of ethical egoism? Recent studies on the relationship between CSR of a firm and its corporate financial performance offer inconsistent findings. One research stream supports stakeholder theory, which posits that stronger CSR involvement is likely to enhance the company's reputation, improve the satisfaction of customers and suppliers, protect employee rights, and help provide reliable financial reports, thereby improving corporate performance (Chih, Shen, & Kang, 2008; Dhaliwal, Li, Tsang, & Yang, 2014; El Ghoul, Guedhami, Kwok,

& Mishra, 2011; Gelb & Strawser, 2001). Another stream argues that businesses should simply comply with shareholder theory and maximize shareholder wealth. This view holds that CSR activities constitute an inefficient use of corporate resources at the expense of shareholder interests and preferences, resulting in a transfer of wealth from shareholders to stakeholders (Devinney, 2013; Reinhardt, Stavins, & Vietor, 2008). Moreover, some studies have even proposed that market investors are not likely to reward CSR events, especially when the firm's financial performance is already high. Such views posit lower marginal benefits of socially responsible investments (SRIs) and the probability of a nonlinear association between the degree of CSR involvement and firm performance (Becchetti, Ciciretti, Hasan, & Kobeissi, 2012; Cheung, Tan, Ahn, & Zhang, 2010; Groening & Kanuri, 2013).

Recent CSR studies have highlighted the need to consider agency problems. Independent managers with weak monitoring are more likely to strengthen their pay-performance link and overspend firms' resources on CSR projects to satisfy stakeholders. These unprofitable CSR projects benefit special interest groups but put

\* Corresponding author.

E-mail address: [finty@ccu.edu.tw](mailto:finty@ccu.edu.tw) (T.-Y. Yen).

firms at a competitive disadvantage (Becchetti, Di Giacomo, & Pinnacchio, 2008; Cespa & Cestone, 2007; Pagano & Volpin, 2005; Prior, Surroca, & Tribó, 2008). Increasing ownership concentration may restrain this type of agency problem. However, several leading studies show that without effective legal systems and governance mechanisms, owner-managers may participate in CSR not to balance interests between insiders and outsiders but to gain noneconomic utility (Arora & Dharwadkar, 2011; Barnea & Rubin, 2010), such as by creating a positive image, receiving recognition for social activities, and enjoying respect in the community. Managers who pursue CSR activities that hamper profits commonly risk losing their jobs. However, controlling insiders, particularly family CEOs, remain safe due to their affiliation ties (Breton-Miller & Miller, 2006); thus, they may perform social activities to enhance their reputations instead of performing win-win strategic social investments (Cespa & Cestone, 2007; Chih et al., 2008; Prior et al., 2008).

Actually, such worries are more serious for the potential acquirers. The determinants of merger and acquisition (M&A) success are not only the interests of both parties but also the relationship with other stakeholders, such as the recognition of the local government and the public, and the support of financial institutions. Some studies have proved that better CSR performance provides benefits (hereinafter referred to as "CSR interests") that enhance the effectiveness of M&As, such as improving the success rate, speeding up the acquisition process, and requiring lower premiums (Aktas, De Bodt, & Cousin, 2011; Deng, Kang, & Low, 2013). While a high reputation among acquirers could lead to the effectiveness on deal-setting, these deals are not necessarily beneficial to the post-merger performance of acquiring firms. Therefore, agency problems should not be ignored as we explore the issues of the CSR effects on M&A performance.

Over the past few decades, companies from emerging markets (EMs), often considered to be examples of serious agency problems and poor governance quality (Johnson, Lopez-De-Silanes, La Porta, & Shleifer, 2000), have continued to strengthen their competitive positions and extend their geographic reach by boosting M&A investments (Sun, Peng, Ren, & Yan, 2012). However, most of the literature regarding the CSR effects on M&A performance has been based on data from developed countries (Bekier, Bogardus, & Oldham, 2001; Deng et al., 2013). The characteristics of emerging economies are quite different from those of developed countries. For example, in emerging capital markets, the level of information asymmetry is relatively higher (Patel, Balic, & Bwakira, 2002), the business groups are more widespread (Khanna & Palepu, 2000), and the legal institutions and enforcement of corporate governance are weaker (Johnson, Lopez-De-Silanes et al., 2000). Moreover, the EM firms, even listed companies, are often owned or controlled by particular families or specific controlling shareholders (La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 1998) who perform socially responsible decisions. Therefore, investors with agency concerns may have more pessimistic expectations for the CSR participation of the firms in EMs, contrary to what stakeholder theory suggests for developed markets.

Based on the above considerations, this study utilizes EM data to examine the cause–effect linkage between acquirers' pre-merger CSR performance, the CSR interests on deal-setting, market reactions to the deal announcement, and post-merger financial improvements. Regarding the CSR interests, we specifically acknowledge that EM acquirers have stronger incentives to undertake a significant SRI before proposing a cross-border deal for their reputation enhancement and consequently, gain recognition from overseas targets as well as the governments and the societies to which the target firms belong. However, market investors may worry that the expected synergies from such overseas transactions will not be enough to compensate for the excessive costs incurred

in pursuit of the CSR interests. Hereafter, we refer to this type of investors' doubts as "CSR agency concerns" in this study.

Other studies examining a single-country sample usually investigate the importance of the acquirer's own internal corporate governance regarding CSR agency issues. By conducting a cross-country study, we seek to further observe the impact of the external legal environment on possible CSR agency problems. If the corporate governance mechanisms of the acquirer itself or its country-level legal systems impact the market reaction to CSR performance, it provides evidence of the CSR agency concerns and suggests that improving governance quality could minimize such concerns. Moreover, evidence from a large EM sample enables the analyses of cross-country differences and validates the appropriateness of previous studies in which emerging countries are collectively viewed as examples of weak governance quality. This study makes several major contributions to existing literature as follows.

**First**, our findings support that investors have their own cost–benefit concerns regarding the level of acquirers' pre-merger CSR performance when responding to M&A events. Neither the stakeholder nor the shareholder view, as stated in the previous literature, can account for the market reaction to M&A performance. **Second**, our results indicate that investors have different expectations regarding the impact of SRIs on the success of M&A deals, and therefore have different agency cost concerns for different SRI events. EM investors, in response to M&As, are concerned that agency problems may occur through CSR overspending in environmental issues, rather than in societal issues. **Third**, empirical evidence on the cause–effect linkage confirms that EM acquirers generally enhance their corporate image through SRIs to gain recognition from overseas targets and thereby increasing the likelihood of international deal success. Further evidence shows that taking advantage of superior social performance to improve cross-border deals efficiency obviously exists in EM acquirers without effective supervision, implying that a large amount of CSR spending on societal issues may be the sub-optimal investments of EM acquirers with potential CSR agency problems. **Fourth**, market reactions to the CSR effects on such cross-border deals still depend directly on investors' expectations regarding the CSRs' cost–benefit concerns, rather than indirectly on their optimism regarding the effectiveness of deal-making. CSR agency costs are still the major cost concerns of investors regarding the CSR interests. **Fifth**, investors' CSR agency concerns could be effectively alleviated by country-level legal institutions. Firm-level governance mechanisms are not enough to gain the investors' trust in the pre-merger CSR expenditure of EM acquirers. Similarly, parties related to overseas targets also have greater confidence in a country's law enforcement rather than in a company's self-regulation, especially for companies from EMs.

**Additionally**, we confirm the synergy hypothesis by examining long-term post-merger operating performance. Corporate acquisitions generate significantly positive improvements in operating performance, but CSR performance is averagely negative relative to the improvements of EM acquirers. Moreover, comparing short-term abnormal market returns, the regression results provide the following observations: 1) market investors, due to the CSR agency concerns, do not consider acquirers' pre-merger CSR performance as a signal for investment during the deal announcement period, and that related agency costs do affect financial performance in the long run after the merger; 2) market investors, excluding the agency cost concerns, have positive expectations for cross-border deals that benefit from the CSR interests; however, such expectations are not supported by post-merger financial performance of the combined firms; 3) acquiring firms with high environmental involvement and strong legal protection are the specific sample firms that investors' positive expectation could reflect the future

operating performance; 4) the better governance quality of targets' nations in comparison with that of the acquirers' nation is not valued by market investors but significantly leads to the better long-term operating performance of the combined firms.

**Finally**, while all the sample acquirers are from emerging countries, a better national legal environment has a positive impact on deal performance. Therefore, we propose an argument disputing the conclusions of previous research that consider emerging countries collectively as examples of weak governance quality.

The remainder of this study is organized as follows. Section 2 summarizes the literature on the effects of CSR performance and the CSR–M&A performance link, and then develops the research hypotheses. Section 3 describes the study's sample and methodology. Section 4 reports the empirical results and an additional analysis. Finally, Section 5 offers a final discussion and conclusions.

## 2. Literature review and hypothesis development

### 2.1. CSR effects

Renneboog, Ter Horst, and Zhang (2008) characterize CSR as an integration of proper corporate governance that protecting the interests of shareholders, environmental efficiency that protecting the interests of environmental stakeholders, and good social relations that protecting the interests of other stakeholders, including those of employees and the local community. The literature offers two opposing views of CSR: the stakeholder value maximization view, which is in line with stakeholder theory, and the stakeholder expense view, which is consistent with shareholder theory.

#### 2.1.1. Stakeholder theory

Freeman (1984) integrates multiple stakeholder concepts to define "stakeholder" as "any group or individual who can affect or is affected by the achievement of the firm's objectives" (p. 47). In accordance with this concept, stakeholder theory proposes that corporations should consider the effects of their actions upon customers, suppliers, the general public, employees, and others who have a stake or interest in the corporation (Freeman, Wicks, & Parmar, 2004; Lee, 2008; Schaefer, 2008). By providing for the needs of stakeholders, corporations can ensure their persistent success. This line of study advocates that companies, under intense pressure from regulators and various interest groups, will engage in so-called "strategic CSR" to balance social goals with shareholder value maximization, and thus create a win-win situation through positive market reactions (Baron, 2007; Dhaliwal et al., 2014; Saeidi, Sofian, Saeidi, Saeidi, & Saeidi, 2015; Skarmeas & Leonidou, 2013). For example, Fulmer, Gerhart, and Scott, (2003) examine US firms on the 1998 list of the "100 Best Places to Work For" and observe that the listed companies display not only stable employee satisfaction but also higher-than-average return on assets (ROA). El Ghoul et al. (2011) use the KLD STATS<sup>1</sup> database to examine the relation between CSR and the cost of equity financing, finding that firms with higher CSR scores have greater transparency and disclosure, and thus obtain cheaper equity financing. Klassen and McLaughlin (1996) analyze three-day market reactions to the firm-level environmental activities of US firms and provide empirical evidence that significantly positive returns result from strong environmental

management and significantly negative returns result from crises due to weak environmental management. Becchetti et al. (2012) create a sample of 327 entry and exit events from the KLD Domini 400 Social Index<sup>2</sup> (DSI) concerning 278 US firms, finding that exit announcements from the Domini index lead to significantly negative abnormal returns for component firms, even after concurrent financial distress shocks and stock market seasonality are controlled for.

Beyond the US market, Cheung et al. (2010) use the Credit Lyonnais Securities Asia (CLSA) corporate governance score<sup>3</sup> to compile three firm-year sets of CSR data for a sample of major firms listed in Asian EMs. They use both the Tobin's Q and market-to-book ratio to test for CSR impacts. The results support the stakeholder theory, revealing that CSR is positively related to the market valuation of the subsequent year and that Asian firms are rewarded by the market for improving their CSR engagement. Dhaliwal et al. (2014) gather 7108 standalone CSR reports<sup>4</sup> published by 1297 unique public firms from 31 countries and find that the issuance of standalone CSR reports is closely linked to lower analyst forecast errors. This relationship is strongest in countries where CSR has more influence on firm performance.

#### 2.1.2. Shareholder theory

In contrast to the view of stakeholder value maximization, shareholder theory proposes that the purpose of a business is to make money. By serving the demands of shareholders, businesses generate wealth that benefits society. Thus, being generous with shareholders' money is inappropriate regardless of how noble the cause is (Cheers, 2011). For example, Mathur and Mathur (2000) identify 73 announcements related to green marketing activities by firms from the *Wall Street Journal* as well as from the newswire and newspaper files from LEXIS/NEXIS. The results reveal that announcements related to green promotional efforts produced 20 days of significantly negative abnormal stock returns, while announcements for green products, recycling efforts, and the appointment of environmental policy managers resulted in nonsignificant stock price reactions. By sampling approximately 1000 Domini firms, Becchetti et al. (2008) demonstrate that permanence in the DSI significantly increases total sales per employee but reduces returns on equity. Based on a sample of 780 announcements from the daily business press, Jacobs, Singhal, and Subramanian (2010) report that the market does not react significantly to the announcements of aggregated corporate environmental initiatives and environmental awards and certifications; however, the results also show that the market is selective in reacting to certain environmental performance announcements, even valuing some negatively.

Groening and Kanuri (2013) review all firm-specific corporate social events (CSEs) from the KLD dataset for 2008; the sample firms are listed in the Russell 2000 index. They examine abnormal stock

<sup>2</sup> The KLD Domini 400 Social Index, developed in 1990 by Boston-based KLD Research & Analytics, Inc., is one of the first socially responsible investing (SRI) indices. The index comprises companies with high ESG ratings. Companies involved in alcohol, gambling, tobacco, military weaponry, civilian firearms, nuclear power, adult entertainment, and genetically modified organisms are excluded. In 2010, this index was renamed the "MSCI KLD 400 Social Index."

<sup>3</sup> The CLSA corporate governance (CG) ratings are assigned to 475 companies in 20 countries in Asia, Europe, the Middle East, and Africa (EEMEA), and Latin America (Latam). The scores are based on the responses of CLSA financial analysts to 57 questions grouped into seven categories: discipline, transparency, independence, accountability, responsibility, fairness, and social responsibility. Responses are used to construct scores on a scale of 1 to 100, with higher numbers indicating more favorable governance.

<sup>4</sup> The major source of CSR reports is the Corporate Register, a leading UK-based repository of CSR reports. The other data come from the Corporate Responsibility Newswire and firms' websites.

<sup>1</sup> KLD, founded in 1988, is an investment research company specializing in the evaluation of companies concerning their social, environmental, and governance performance. KLD STATS, a statistical summary of KLD's in-depth research, provides ratings on a wide range of CSR-related items, including the media, nongovernmental organizations, governments, public documents, and annual company reports. On September 1, 2010, the KLD indices transitioned to the MSCI Environmental, Social, and Governance (ESG) indices.

returns reacting to news about CSEs and report a critical finding: the investors' reactions to a CSE depends on investors' cost–benefit analyses of the CSE investment, which may not always relate to the responses of the stakeholders or shareholders. When a firm with poor financial performance reports a pCSE (the type of CSE that adds CSR and removes corporate social irresponsibility [CSI]), investors may deem this spending as an attempt to increase the current level of firm financial performance through activities designed to create stakeholder-specific resources. As the financial performance of a firm increases, the marginal financial returns from the pCSE are likely to diminish. When a firm with strong financial performance reports a pCSE, investors may view this expenditure as unnecessary and even as representing a large opportunity cost that may disadvantage the firm financially.

## 2.2. CSR effects on M&A performance

Unlike general business investments, M&A activities involve a company reorganization that fundamentally changes the company's operational nature as well as the interest distribution among various stakeholders. The decision makers conducting M&A activities—usually those who perform CSR investments as well—face a more complicated situation concerning possible inconsistencies between the pursuit of corporate profits and the realization of social values. The shareholder theory states that when a high-CSR firm executes an M&A, society will penalize the company for fear that CSR is a sacrifice (Morgan, 2009; Sharfman, 1996), thereby leading to the destruction of post-merger synergies and the reduction of shareholder wealth. However, the most widely recognized notion of the stakeholder theory is that high-CSR firms are more likely to achieve effective deal negotiation during the acquisition process, thereby improving their post-merger financial performance (Deng et al., 2013). For example, Bekier et al. (2001) sample more than 160 acquisitions by 157 US-listed companies across 11 industry sections in 1995 and 1996. They conclude that, during the transition period of a merger, key employees and customers choose to leave when the management team fails to effectively deal with stakeholder relations. Consequently, the combined firm suffers a reduction in firm value. On the contrary, acquirers with stronger CSR images tend to inspire greater satisfaction among stakeholders in the process of integration; thus, their shareholders benefit more from the mergers. The authors demonstrate that M&A is a substantial channel through which CSR can influence shareholder wealth.

Aktas et al. (2011) test how the socially responsible performance of targets affects the abnormal announcement returns of global acquirers. The results for 129 M&A deals (106 acquirers) with available Innovest database rating data for both the acquirers and the targets<sup>5</sup> from 2000 to 2007 indicate that the stronger the target's environmental and social performance, the higher the abnormal returns for the acquirer; moreover, the acquirer's CSR performance improves after combining with a socially responsible target. However, their study is limited to the relationship between the acquirer's abnormal market returns and the target's CSR performance and does not address the link between market reactions and CSR performance of the acquirer. In addition, their small sample of international M&A deals might not have been sufficiently large for a cross-country study.

Using the KLD database, Deng et al. (2013) investigate 1556 completed deals of 801 US firms between 1992 and 2007. Their

empirical results strongly support the stakeholder theory by indicating that acquiring firms with strong CSR performance achieve higher merger announcement returns and larger increases in post-merger long-term operating performance. They also report that mergers conducted by acquiring firms with strong CSR performance are less likely to fail and require less time to complete. Their study considers the endogenous effects between the quality of a firm's corporate governance and its social performance but does not discuss the impact of governance mechanisms on the relationship between CSR and merger performance. Moreover, their evidence is confined to US deals with single-market characteristics, which do not enable the analysis of the influence of country-level legal quality on the CSR-M&A performance link.

This study contributes to discussions regarding market reactions to M&A events elicited by the CSR performance of EM acquirers. Based on a sample outside the developed markets, we support that neither the stakeholder theory nor the shareholder theory, alone, can interpret the effects of CSR (Groening & Kanuri, 2013). Market investors have their own cost–benefit concerns regarding the pre-merger CSR performance of EM acquirers when responding to M&As. Based on this concept, the first research hypothesis can be drawn as the following:

**H1.** Abnormal announcement returns reflecting the market reactions to M&A deals are not associated with the pre-merger CSR performance of EM acquirers (CSR-CAR link) without considering the CSR agency costs.

## 2.3. CSR agency problems—governance quality

Following the concept of the cost–benefit effects outlined in Groening and Kanuri (2013), this study draws attention to the agency costs of CSR events, in addition to the opportunity and financial costs of CSEs. From the perspective of managerial entrenchment, CSR can be abused by managers seeking to mask their opportunistic behaviors rather than acting for the benefit of stakeholders. A rent-seeking manager may apply strategies to sustain his or her "license to operate" when a legitimacy gap exists. Performing CSR activities is a way to manipulate public perception by diverting attention away from one topic to another (Choi, Lee, & Park, 2013). Pagano and Volpin (2005) construct a theoretical model to argue that incumbent managers may reward stakeholders such as employees with generous benefits in order to reduce the pressure caused by hostile takeovers. Cespa and Cestone (2007) also provide a testable model to predict that maintaining good relationships with firm stakeholders can reduce the stakeholders' scrutiny of firm operations, thus strengthening the manager's job security. Barnea and Rubin (2010) collect samples from the KLD Russell 3000 index, which tracks the 3000 largest US-based companies. Their empirical evidence reveals that controlling insiders tend to over-invest in CSR activities to build their own personal reputation as responsible managers and good global citizens. Arora and Dharwadkar (2011) study 518 S&P 500 firms from the KLD Domini 400 universe and find that dominant managers are more likely to be myopic and overly concerned about quarterly performance. Therefore, controlling power actually reduces CSR involvement rather than forcing managers to improve CSR performance.

Agency costs are even more worrying for investors in places outside the US market where investor protection systems are lacking. Chih et al. (2008) investigate 1653 corporations across 46 countries indexed in the FTSE4Good,<sup>6</sup> finding that firms with a greater com-

<sup>5</sup> The Innovest Strategic Value Advisors database provides Intangible Value Assessment (IVA) ratings comprising 120 performance factors, including innovation capacity, product liability, governance, human capital, emerging markets, and environmental opportunities and risk.

<sup>6</sup> The FTSE4Good Index Series is a series of ethical investment stock market indices first launched in 2001 by the FTSE Group. A number of stock market indices are available covering, for example, UK shares, US shares, European markets, and Japanese

mitment to CSR are negatively associated with income smoothing but positively related to earnings aggressiveness. [Prior et al. \(2008\)](#) use international data composed of 593 firms from 26 nations to report that a portion of CSR investments are wasted to gain support from stakeholders. Thus, the combination of earnings management and CSR negatively affect financial performance. [Deephouse and Jaskiewicz \(2013\)](#) study a sample of large firms across eight countries with different governance systems and cultures (i.e., France, Germany, India, Italy, Japan, South Korea, Sweden, and the United Kingdom). Their empirical results indicate that, because of the strong identification with their firms, controlling insiders (i.e., family owners) are forced to focus on a positive reputation via CSR that might be costly in the short run. [Choi et al. \(2013\)](#) analyze 2042 Korean firms and find that CSR ratings are negatively correlated with the level of earnings management. However, the negative relationship between CSR and earnings manipulation becomes weaker for firms with a highly concentrated ownership, which suggests that CSE can be abused by firms seeking to conceal their poor earning quality.

In terms of mitigating the agency costs of CSR, the relevant research generally indicates that a combination of CSR and corporate governance has a stronger positive effect on firm performance than CSR alone ([Jamali, Safieddine, & Rabbath, 2008](#)). [Harjoto and Jo \(2011\)](#) examine a combined sample of 12,527 observations for 2952 US firms from the KLD database and offer the following crucial findings: 1) firms use governance mechanisms, along with CSR engagement, to reduce conflicts-of-interest between managers and non-investing stakeholders; 2) a firm's CSR choice is positively associated with its governance characteristics; and 3) CSR engagement positively influences operating performance and firm value, supporting the conflict resolution hypothesis. [Jo, Song, and Tsang \(2015\)](#) collect cross-country sample data from the MSCI ESG IVA database covering 2006 to 2011, finding that stakeholder governance positively influences firms' CSR engagement more than board governance does after endogeneity and other confounding factors of traditional corporate governance mechanisms, firm characteristics, and national factors are controlled for. The influence of stakeholder governance on CSR engagement is more prevalent when investor protection and board governance are relatively weak. The authors also investigate the empirical association among CSR, corporate governance, and legal systems around the world; however, they do not study how market investors react to firm-level CSR engagement under various degrees of country-level legal protection.

Similar to [Jo et al. \(2015\)](#), this study argues that the market returns of M&A events are generated differently for CSR engagements in different institutional contexts. When companies operate in economies with slack investor protection systems, outside investors are more likely to worry about the agency costs and assume that dominant insiders, without effective monitoring, will execute unprofitable CSR programs to improve their own social reputations instead of balancing the conflicts among interest groups. Based on an international sample of EM firms, generally regarded as having poor investor protection, this study assumes that firm- and country-level governance indices could mitigate CSR-related agency costs, to influence the association between market reactions and CSR performance. The hypothesis concerning the effects of governance quality is as follows:

**H2.** Market reactions to the effects of acquirers' pre-merger CSR performance on M&A deals (CSR-CAR link) differ by the governance quality of EM acquirers.

shares. This index is designed to measure the performance of companies demonstrating strong ESG practices.

## 2.4. CSR interests on cross-border deal-setting

Agency concerns regarding the ability of CSR performance to influence acquisition strategies have not been deeply analyzed in the literature. However, it is reasonable to assume that EM acquirers have incentives to create an impression of strong social responsibility before proposing a cross-border deal, which could increase the likelihood of deal completion ([Pagano & Volpin, 2005](#)). In cross-border deals, the target's local stakeholders, including the workers, local associations, and public authorities, play important roles in the acquisition process. This is especially true when the local targets are from countries with strong legal protection but the foreign buyers are from countries perceived as unprincipled ones who could destroy the well-being of the local stakeholders' community. Taking a small Italian manufacturer as a case study, [Ciambotti, Aureli, and Demartini \(2011\)](#) conclude that target stakeholders' concerns about economic and social stability can at least affect the partner-selection process of an acquisition, even the negotiation phase. Thinking the acquisition process from a social responsibility perspective could be a powerful approach to avoid the unexpected cancellation and create the basis for the future cooperative relationship.

EM acquires may complete a cross-border deal more easily by holding a high level of CSR performance, but does such a deal necessarily benefit acquirers' post-acquisition performance? Studies on international M&As usually suggest that this type of merger provides diversification, reduces risk, and integrates the synergy of internationalization ([Markides & Ittner, 1994](#); [Morck & Yeung, 1991](#); [Seth, Song, & Pettit, 2002](#)). However, several competing explanations argue the value of the proposed cross-border transactions to be low because acquirers may face obstacles of a different nature that offset any possible advantages of entering new markets. Culture difference is usually the key factor that increases the cost of integration and reduces the value of the combined firms ([Ahern, Daminelli, & Fracassi, 2015](#); [Campa & Hernando, 2004](#); [Li, Li, & Wang, 2016](#)).

Analyzing 415,000 cross-border deals across 39 industries in 41 countries during the period 1990–2001, [Bris, Brisley, and Cabolis \(2008\)](#) find that when firms are acquired by foreign companies with better legal protection and sound accounting standards, it could result in a higher Tobin's Q for the target industry. However, if the foreign buyer is from countries that have a weaker governance system, the target industry does not lose value. [Feito-Ruiz and Menéndez-Requejo \(2011\)](#) conduct a comparative study of 469 European M&As over the period 2002–2006. Their empirical results show that the stronger the legal institutions of the acquirer's country in comparison with those of the target's country, the better the announcement returns of the acquiring firm's shareholders. On the contrary, if the foreign acquirer comes from a country with a poorer legal environment than that of the target firm, the acquirer will be forced to improve its governance mechanisms, thereby increasing the transaction cost of cross-border deals and leading to the value reduction.

Based on the above, we expect that pre-merger CSR performance does have an impact on deal-setting but market reactions to CSR are based on the CSR itself and not the benefits of CSR after controlling the agency concerns. Therefore, we present the following hypotheses:

**H3.** The pre-merger CSR performance of EM acquirers has a positive effect on the setting of cross-border deals (CSR-CROSS link).

**H4.** The effect of acquirers' pre-merger CSR performance on the setting of cross-border deals (CSR-CROSS link) depends on the governance quality of EM acquirers.

**H5.** Market reactions to M&A deals are not associated with the impacts of acquirers' pre-merger CSR performance on the setting of cross-border deals (CSR–CROSS–CAR link) without considering the CSR agency costs.

**H6.** Market reactions to the CSR–CROSS link differ by the governance quality of EM acquirers.

### 3. Research methodology

#### 3.1. Data and sample selection

This study collects samples by matching four major databases: 1) the Thomson Reuters SDC Platinum™ Mergers & Acquisitions database, which provides M&A data, 2) the Thomson Reuters Corporate Responsibility Ratings (TRCRR)<sup>7</sup>, which provides proxies for CSR performance and firm-level governance quality across firms and countries, 3) the DataStream database, which provides information on stock returns, and 4) the Thomson Financial database, which provides firm-specific financial and accounting data. Data regarding proxies for country-level governance quality are gathered by recording information in published papers.

To obtain the desired observations, the following criteria are applied: 1) to match with the TRCRR database, which provides rating data between 2007 and 2013, the announcement date of M&A deals is set between the beginning of 2008 and the end of 2014; 2) to ensure market price and financial data availability, acquiring firms must be listed companies; 3) to ensure that the data concerned emerging markets, the MSCI EM index (MSCI-EM index) is applied, which covers all relevant countries (except for Argentina which rating data are unavailable from the TRCRR); and 4) to ensure the relevance of the data, the status of the M&A deals must be completed and defined as mergers, the transaction value be higher than US\$1 million, and the percentage held by the acquirer exceed 50% after the deal. Moreover, acquiring firms are excluded if no rating data are available for them through the TRCRR prior to the year of the deal announcement. The final sample comprises 1986 deals conducted by 743 acquirers<sup>8</sup> based in 23 emerging countries. Companies with multiple deals during the observation period are included.

Panel A of Table 1 reports the numbers and average values of the sample deals organized by acquirer nation. Twenty-three countries are sampled: Brazil, Chile, China, Colombia, the Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Israel, Malaysia, Mexico, Morocco, Peru, the Philippines, Poland, Russia, South Africa, South Korea, Taiwan, Thailand, and Turkey. Most deals are initiated in the Brazil, Russia, India, and China (BRIC) economic group. China has the most deals (433 of 1986, or 21.8%), followed by Russia (353, or 17.8%), India (126, or 6.3%), and Brazil (112, or 5.6%). South Korea (295 deals, or 14.9%) is the only other country comparable to the

BRIC group. Acquiring firms paid, on average, US\$252.42 million for the targets in our sample deals.

Panel B lists the number and average values of the sample deals for four types of industry (traditional industry, service industry, financial industry, and technology industry<sup>9</sup>) and by sample period. The largest proportion of deals is in the traditional sector (785 deals, or 40%), followed by the technology industry (526, or 26%). The service industry comprises the smallest proportion of deals, at 15%. The average deal value, ranging from US\$133.54 million to US\$296.82 million, does not differ significantly among the four types of industries. Within the sample period, 2008 has the lowest proportion of samples, at 9%. This may be due to the lack of first-year CSR data provided by the TRCRR database. The data also reveal that the average deal value is comparatively large in 2010 and 2012; however, this is caused by two particularly large cases that occurred in those years. Once those extreme cases are filtered out, the average value of the sample deals exhibits a downward trend, ranging between US\$242.70 and US\$120.72 million, from 2008 onwards. However, 2014 has the highest proportion of samples, at 22% (432 deals), indicating that merger activities are seriously affected by the 2007 financial crisis, and thus acquirers from EMs tend to perform relatively trivial M&A deals.

#### 3.2. Dependent variable: short-term abnormal stock returns (CARs)

To examine market investors' reactions, this study applies a straightforward event study methodology to measure the abnormal returns close to the announcements of major corporate events such as M&As (Ball & Brown, 1968; Fama, Fisher, Jensen, & Roll, 1969). In the first step, we construct a market model to estimate the normal returns, which are the expected stock returns in the absence of a deal event. The market model is defined as follows:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}, \quad (1)$$

where  $R_{it}$  is the simple daily return of bidder  $i$  on event date  $t$ , and  $R_{mt}$  is the return of the MSCI-EM Index<sup>10</sup> on event date  $t$ . Additionally,  $\varepsilon_{it}$  is the regression residual. The intercept and slope are estimated by applying the method proposed by Scholes and Williams (1977) to account for nonsynchronous trading:

$$\hat{\beta}_{i, SW} = \frac{\hat{\beta}_{i, lag} + \hat{\beta}_{i, lead}}{1 + 2\hat{\rho}_m}, \quad (2)$$

$$\hat{\alpha}_{i, SW} = \frac{1}{L_1 - 2} \sum_{t=T_0+2}^{T_1-1} (R_{it}) - \hat{\beta}_{i, SW} \sum_{t=T_0+1}^{T_1} (R_{mt}), \quad (3)$$

where  $\hat{\beta}_{i, lag}$ ,  $\hat{\beta}_{i, lead}$  are the ordinary least squares (OLS) estimates from the regression of  $R_{mt-1}$ ,  $R_{mt}$ , and  $R_{mt+1}$  on  $R_{it}$ . Furthermore,  $\hat{\rho}_m$  is the first-order autocorrelation of  $R_{mt}$ , and  $L_1$  is the length of the estimation period.

To estimate the model parameters  $\alpha_i$  and  $\beta_i$ , we apply a subset of the data beginning with day  $T_0 = -120$  and ending with  $T_1 = -31$  relative to the announcement date ( $t = 0$ ) as our sample estimation period. The 90-day estimation period has been applied in several

<sup>7</sup> For CSR performance, most studies have used the well-known KLD dataset; however, this dataset covers US firms only. Some studies have adopted the FTSE4Good and MSCI ESG indices; however, they comprise companies from both developed and developing countries; thus, the CSR performance of emerging companies is easily masked in them. The CLSA CG dataset, comprising 20 countries in Asia, EEMEA and Latam, would be a good choice for studies outside the US. However, the April 2001 survey of the CLSA dataset is the most recent available version, and this is not sufficiently up-to-date for our purposes. The TRCRR measures, based on data provided by ASSET4, a leading global provider of ESG data, provide environmental (EN), social (SO), corporate governance (CG), and composite ESG ratings and rankings for over 4,600 listed companies worldwide. The measures are designed to provide the type of peer-to-peer comparisons that are most appropriate for our study.

<sup>8</sup> To control for the clustering problem possibly caused by multiple acquirers, this study reruns the regressions while estimating the robust clusters (Wooldridge, 2003) and bootstrap standard errors (Efron & Tibshirani, 1986). Coefficients and  $t$  statistics based on standard errors adjusted for heteroscedasticity and acquirer clustering are qualitatively similar, and thus are not reported for brevity's sake.

<sup>9</sup> The industries of acquiring firms are categorized using the classification of the Global Industry Classification Standard (GICS), which has 10 major industry categorizations comprising energy (code 10), material (code 15), industrials (code 20), consumer discretionary (code 25), consumer staples (code 30), health care (code 35), financials (code 40), information technology (code 45), telecommunication services (code 50), and utilities (code 55). To simplify the classification, this study regroups these 10 GICS groups into four industry-specific clusters: traditional industry (codes 10, 15, 20), service industry (code 25, 30), financial industry (code 40), and technology industry (codes 35, 45, 50, 55).

<sup>10</sup> Data are available from the MSCI website: [http://www.msci.com/products/indices/country\\_and\\_region/em/](http://www.msci.com/products/indices/country_and_region/em/).

**Table 1**

Sample description.

Panel A Statistics for sample deals by acquirers' country

Nation	Number of Deals	Number of Firms	Average Value (\$US million)	Total Value (\$US million)
China	433	(21.8%)	239	202.25
Russian Fed	353	(17.8%)	28	340.37
South Korea	295	(14.9%)	90	165.77
India	126	(6.3%)	61	122.33
Brazil	112	(5.6%)	28	896.49
Taiwan	86	(4.3%)	47	107.98
South Africa	83	(4.2%)	42	134.64
Mexico	81	(4.1%)	32	600.89
Malaysia	69	(3.5%)	37	30.91
Greece	53	(2.7%)	15	92.85
Thailand	38	(1.9%)	14	54.55
Indonesia	34	(1.7%)	15	22.44
Chile	33	(1.7%)	14	264.12
Poland	30	(1.5%)	15	162.55
Philippines	29	(1.5%)	17	102.61
Israel	28	(1.4%)	7	856.48
Colombia	26	(1.3%)	9	206.82
Turkey	25	(1.3%)	14	34.74
Czech	15	(0.8%)	2	132.33
Peru	14	(0.7%)	5	23.48
Egypt	9	(0.5%)	8	27.48
Morocco	8	(0.4%)	2	59.01
Hungary	6	(0.3%)	2	2.75
	1986	(100%)	743	252.42
				501297.25

Panel B Statistics for the deal value by announcement year and by acquirers' industry (\$US million)

Year	Traditional industry		Service industry		Financial industry		Tech-intensive industry		Total	
	Count	Avg.	Count	Avg.	Count	Avg.	Count	Avg.	Count	Avg.
2008	84	132.21	16	30.22	40	712.15	32	417.72	172 (9%)	310.71
2009	138	168.43	31	315.27	69	110.14	75	113.58	313 (16%)	156.98
2010	126	536.97	59	143.37	62	235.43	86	584.95	333 (17%)	423.48 [242.70] <sup>1</sup>
2011	106	229.64	36	144.54	60	102.68	82	320.20	284 (14%)	218.18
2012	83	761.39	31	70.96	42	163.45	74	460.23	230 (12%)	462.25 [151.34] <sup>2</sup>
2013	73	211.20	36	150.54	43	165.21	70	133.27	222 (11%)	167.88
2014	175	123.42	85	90.86	65	131.27	107	133.61	432 (22%)	120.72
Total	785 (40%)	288.61	294 (15%)	133.54	381 (19%)	208.25	526 (26%)	296.82	1986 (100%)	252.42

The sample of 1986 M&A deals by 743 public acquirers in 23 EM countries between 2008 and 2014 for completed transactions over US\$1 million was obtained from the Thomson Reuters SDC Platinum™ M&A database.

Note 1. Three large deals were conducted in 2010 by two acquirers (TNK-BP Ltd from Russia and China Telecom Corp-3G Assets from China). After these three deals are filtered out, the average value of sample deals in 2010 is US\$242.70 million.

Note 2. Two large deals were conducted in 2012 by two acquirers (Brazil-Oil & Gas Blocks from Brazil and Carso Global Telecom from México). After these two deals are filtered out, the average value of sample deals in 2012 is US\$151.34 million.

event studies, such as [Bosch and Hirschey \(1989\)](#) and [Chauvin and Shenoy \(2001\)](#). Moreover, we skip the near singular events to avoid any overlapping event estimation.

In the second step, we calculate the abnormal return to assess the impact of the event. Abnormal return ( $AR_{it}$ ) is defined as the difference of the realized return ( $R_{it}$ ) and the expected return (normal return,  $E(R_{it})$ ), accounting for the absence of the event ([Barber & Lyon, 1997](#); [Ritter, 1991](#)). Because the market requires time to reflect information leaks and disclosures, we calculate cumulative abnormal returns (CARs) for bidder  $i$  over the time interval ( $\tau_1, \tau_2$ ) centered on the announcement date ( $t=0$ ):

$$AR_{i,t} = R_{i,t} - E(R_{i,t}) = R_{i,t} - (\hat{\alpha}_i, SW + \hat{\beta}_i, SWR_{M,t}), \quad (4)$$

$$CAR_i(\tau_1 \tau_2) = \sum_{t=\tau_1}^{\tau_2} AR_{i,t}. \quad (5)$$

[Table 2](#) summarizes the cumulative abnormal stock returns (CARs) of the sample acquiring firms for several possible event windows.<sup>11</sup> The results reveal that both the mean and median CARs are statistically positive for all the short-term event win-

dows. This indicates that investors generally express optimistic attitudes toward EM companies that engaged in M&A activities during the sample period. Moreover, we observe that, when graphed, the mean CARs present a U-shape from the longer event period to the shorter, where  $CAR(-1, 1)$  has the lowest mean (0.24%) and  $CAR(-10, 10)$  has the highest (0.56%).  $CAR(-2, 2)$  is chosen as the dependent variable to enable comparability with most previous studies. Previous studies offer mixed evidence on CARs for acquiring firms. [Masulis, Wang, and Xie \(2007\)](#) indicate that the average five-day  $CAR(-2, 2)$  for US deals between 1990 and 2003 is 0.215%, significantly different from 0 at the 5% level. However, [Deng et al. \(2013\)](#) report a negative mean  $CAR(-2, 2)$ , -0.124%, for US mergers occurring between 1992 and 2007, without significance. [Feito-Ruiz and Menéndez-Requejo \(2011\)](#) demonstrate that the mean  $CAR(-2, 2)$ , 1.39%, is positive and statistically different from 0 for European acquiring firms between 2002 and 2006. [Bhagat, Malhotra, and Zhu, \(2011\)](#) report that EM acquirers from 1991 to 2008 experienced, on average, a significantly positive market return of 2.43% during the five-day  $CAR(-2, 2)$  close to the acquisition announcement. Their

<sup>11</sup> We also test the short-term event windows of three days (-1, 1), four days (-2, 1), five days (-3, 1), seven days (-3, 3), 11 days (-5, 5), and 21 days (-10, 10) in

the following analyses. The major results are quantitatively similar; thus, we simply report the five-day windows (-2, 2) in the following analyses for the sake of brevity.

**Table 2**

Cumulative abnormal announcement returns (CARs).

Event Window	Mean (%)	Me (%)	Sd (%)	Positive (%)	t-stat.	WSR-stat.
(-10, 10)	0.56	0.46	8.02	52.1%	3.119 ***	3.727 ***
(-5, 5)	0.42	0.22	5.74	51.4%	3.263 ***	4.102 ***
(-3, 3)	0.46	0.37	4.61	52.7%	4.419 ***	4.783 ***
(-2, 2)	0.36	0.31	4.00	52.5%	3.984 ***	4.448 ***
(-1, 1)	0.24	0.12	3.13	51.4%	3.375 ***	4.331 ***
(-2, 1)	0.40	0.35	3.54	54.0%	5.023 ***	5.401 ***
(-3, 1)	0.52	0.44	3.93	54.9%	5.938 ***	6.163 ***

This table reports summary statistics for CARs of acquirers. The sample of 1986 M&As involving 743 acquiring firms in 23 EM countries between 2008 and 2014 was obtained from the Thomson Reuters SDC database. The selection criteria are presented in Section 3.1. The event study methodology used to estimate CARs around the M&A announcement date are described in Section 3.2. Extreme values are winsorized using Huber's M-estimator ( $k=1.28$ ) approach. One sample t-tests and Wilcoxon signed ranks (WSR) tests are performed to assess the statistical significance of means and medians. \*, \*\*, and \*\*\* represent significance at the 10%, 5%, and 1% levels, respectively.

result is higher than the mean CAR ( $-2, 2$ ), 0.36%, in this study for the acquiring firms of EMs from 2008 to 2014.

### 3.3. Independent variables

#### 3.3.1. CSR variables (ENV, SOC)

Considering that corporate governance mechanisms are designed mainly to protect shareholders (Renneboog et al., 2008), this study adopts the other two specific CSR domains that focus on the interests of stakeholders in the TRCRR database: environmental and social activities. Following the screening policy of the TRCRR, the examined environmental (EN) rating factors comprise resource usage and reduction, emissions and emissions reductions, environmental activism and initiatives, and product or process innovation; while the examined social (SO) rating factors comprise employment quality, health and safety issues, training, diversity, human rights, community involvement, and product responsibility. Ratings are derived from company comparisons for a total of 226 key performance indicators (KPIs). The 226 KPIs are derived from over 500 separate data points to facilitate accurate and transparent screenings. Ratings are raw scores that are normalized and adjusted for skewness as well as the differential between the mean and the median; they are then fitted to a bell curve to derive ratings between 0 and 100 for each company.

Obviously, the environmental (EN) ratings measure a company's environmental efficiency, as required by environmental groups. The social (SO) ratings evaluate a company's social relations, which are of interest to other parties such as employees and the community at large (Renneboog et al., 2008). To observe two main types of corporate stakeholders, this study adopts these two CSR ratings from the TRCRR as two separate CSR measures<sup>12</sup>

ENV: a continuous variable, denotes a percentage of the environmental (EN) rating assigned to each sample acquirer prior to the deal announcement year.

SOC: a continuous variable, denotes a percentage of the social (SO) rating assigned to each sample acquirer prior to the deal announcement year.

<sup>12</sup> We also employed the composite environment-social (ES) ratings to analyze the comprehensive CSR performance. Composite ES ratings are calculated as follows:  $ES\text{ Rating} = \frac{1}{2} \times \text{Environmental Rating} + \frac{1}{2} \times \text{Social Rating}$ . Empirical evidence shows that the average (median) comprehensive CSR scores (ES) of acquirers in the sample prior to the deal announcement is 51.224% (50.375%). Higher CSR involvement is negatively associated with market reactions regarding announcement returns ( $p=-0.058$ ). Regression results are either consistent with those of the CSR individual indicators (ENV and SOC) or eliminate the difference between the two indicators. Since environment and social performance convey different expectations for different types of stakeholders and have different influences on M&A success, subsequent analyses will focus on environmental and social performance separately. All the empirical evidence regarding the comprehensive ES performance are not presented in the tables to avoid complicated descriptions.

#### 3.3.2. Transaction-type variable: cross-border deals (CROSS)

The way an enterprise responds to CSR issues before an M&A should have considerable influence on the transaction-type setting. This study identifies the cross-border transaction as a deal element that is probably most affected by the acquirers' pre-merger CSR performance and is well-documented as one of the determinants of M&A success (Campa & Hernando, 2004; Healy, Palepu, & Ruback, 1992). To investigate how CSR performance relates to the setting of cross-border deals (CSR-CROSS link) and how the market reacts to the CSR-CROSS link, we create a dummy variable CROSS that equals to one if the deal involves an acquirer firm and a target firm with headquarters located in different home countries. Data are obtained from the SDC database.

#### 3.3.3. Governance variables (COGH, LEGH)

A considerable amount of the governance literature addresses the importance of internal and external monitoring mechanisms in mitigating agency costs (Bae & Goyal, 2009; Bae, Baek, Kang, & Liu, 2012; Chen, Chen, & Wei, 2011; Karolyi, 2012). The general conclusion is that companies in countries with better governance quality can curb private benefits, leading to improved performance (Esty & Megginson, 2003; Johnson, Boone, Breach, & Friedman, 2000; Nenova, 2003). To investigate the impact of firm-level governance on the CSR-CAR link, this study sets a continuous variable (COG) representing a percentage of the corporate governance (CG) ratings assigned to the acquiring firms prior to the deal announcement year in the TRCRR database. The examined corporate governance rating factors include board structure, compensation policy, board functions, financial and operational transparency, shareholder rights, and vision and strategy. To make it easier and clearer to interpret the testing results of cross-effects between governance and CSR variables, we further divide the entire sample into two subgroups based on the median of sample acquirers' CG scores (40.90%) and set a dummy variable (COGH), whose value is one when an acquiring firm belongs to the top subsection with CG scores above the median.

For external legal quality, this study applies the time-varying Worldwide Governance Indicators (WGI) produced by the World Bank Institute (Kaufmann, Kraay, & Mastruzzi, 2016).<sup>13</sup> The WGI have reported six dimensions of public governance for over two hundred countries and territories starting in 1996: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of

<sup>13</sup> We also tried to use all six WGI measures in the following regression analyses. The overall result is about the same as the effect of one composite index on the CSR-CAR link. Two of the WGI factors, voice and accountability (VA) and control of corruption (CC), have significantly negative and positive correlations with CAR, respectively (Langbein & Knack, 2010). However, the significance exists only in the model with six measures together. It does not appear in the models if each indicator applied individually.

corruption. The value of each governance indicator ranges from approximately -2.5 to 2.5, with higher values corresponding to better governance. The WGI<sub>s</sub> are widely used to assess institutional quality in recent empirical governance studies (Kaufmann, Kraay, & Mastruzzi, 2009; Kaufmann, Kraay, & Mastruzzi, 2011; Rotberg, 2014; Thomas, 2010). Due to the high correlation between the six indicators, this study follows Binici, Hutchison, and Schindler, (2010) and sets a continuous variable (*LEG*) representing the average value of the six individual WGI<sub>s</sub> (*WGIavg*) assigned to the acquirer's nation prior to the year of the deal announcement, ranging from -2.5 to +2.5. Next, we also divide the entire sample into two subgroups based on the median of the sample nations' *WGIavg* values (-0.2833) and set a dummy variable (*LEGH*), whose value is one when the acquiring firms are in countries with a *WGIavg* value above the median. The variables related to governance quality in this study are listed below:

*COGH*: a dummy variable that equals one if the acquiring firm belongs to the top subsection with a CG score above the median.

*LEGH*: a dummy variable that equals one if the acquiring firm is from a country with a *WGIavg* value above the median.

In addition, to control for the effects of other possible factors on the relationship between market reactions and CSR performance following M&A events, this study also includes several groups of control variables in the following analyses: deal strategies (*LEGdiff*, *SHARE*, *FRIENDLY*, *TOEHOLD*, *DIV*, *RELSIZE*), firm characteristics (*LNSIZE*, *ROA*, *DEBT*, *FCF*), and fixed-effect dummies for years (*YEARn*) and industries (*INDm*). Country dummies (*COUNTRYh*) are added as control variables only in the regression models without considering the country-level governance quality. Detailed definitions of and sources for the variables used are provided in Appendix A.

#### 4. Empirical results

##### 4.1. Descriptive statistics and univariate analysis

Table 3 reports summary statistics for explanatory variables, including the CSR, transaction-type, governance and other control variables, which are considered to affect acquisition performance and the CSR-CAR link in this study. Panel A shows that the average (median) environmental scores (*ENV*) of sample acquirers prior to the deal announcement is 53.05% (52.27%). Higher degrees of environmental involvement is negatively associated with the market reaction regarding deal announcement ( $p = -0.048$ ). Similarly, the mean (median) social scores (*SOC*) of sample acquirers is 49.40% (49.60%). Higher degrees of social involvement is associated with lower abnormal stock returns ( $p = -0.057$ ). These results indicate that EM investors possess pessimistic attitudes toward acquirers' pre-merger CSR participation either in environmental issues or in societal issues.

For internal governance continuous variable (*COGH*), the average (median) governance ratings of sample acquirers is 41.28% (40.90%). The degree of firm-level governance quality varies considerably (lowest: 0.49%, highest: 99.88%) and is negatively related to the short-term deal announcement returns ( $p/\rho\text{ho}$ -value: -0.046/-0.039). Furthermore, based on the results of *COGH* dummy variable, the subsample deals from acquiring firms with a high level of internal corporate governance report significantly lower deal announcement returns than those achieved by sample deals from the low-level group ( $t/z$ -value: -2.369/-2.321). These results support the arguments on optimal governance mechanisms (Agrawal & Knoeber, 1996; Burkart, Panunzi, & Shleifer, 2003; Vefreas & Theodorou, 1998; Weir, Laing, & McKnight, 2002). In other words, too strong governance mechanisms encourage decision makers to seek other informal substitutes that will lead to

even higher costs and more constraints (Bruno & Claessens, 2010; Claessens & Yurtoglu, 2013).

For external governance continuous variable (*LEG*), the average (median) governance ratings of sample nations is -0.06 (-0.28). The degree of country-level governance quality, varying between -0.95 and 1.22, is positively but nonsignificant related to *CAR* ( $t/z$ -value: 0.002/0.017). Similar results are observed with the legal dummy variable (*LEGH*) wherein the deal announcement returns of acquirers with high-quality external legal institutions is relatively low but not that different from those of acquirers from the poorer-quality group ( $t/z$ -value: -1.515/-1.455 without significance). The results reported thus far are all based on a univariate analysis. Whether the effects continue to hold after we control for other factors expected to affect deal announcement returns and the CSR-CAR link is determined below using multivariate regression models.

Panel B compares the mean (median) for transaction type variable (*CROSS*) on two CSR measures (*ENV* and *SOC*) and *CAR* using an independent *t* (Mann-Whitney, MW) test for the full sample. The results indicate that high-CSR firms are more likely to propose cross-border deals. However, we find that acquiring firms contemplating cross-border deals underperform their peers on abnormal announcement returns (*CARs*) at the 10% level of significance ( $t = -1.786$ ). Moreover, EM acquirers that have better internal corporate governance (*COGH*) or are from countries with stronger legal systems (*LEG*) are more likely to complete cross-border deals as expected. The results so far are based on univariate analysis. Further conclusions regarding the cause-effect link between CSR performance and cross-border deals are obtained using logistic regression models.

Panel C presents the correlation coefficients among variables applied in the following multivariate regressions. We observe that the CSR performance (*ENV* and *SOC*) of sample acquirers is positively related to their firm size (*LNSIZE*), leverage ratio (*DEBT*), corporate governance (*COGH*), and legal environment (*LEGH*). These results basically support the view of stakeholder theory. However, a high-CSR-orientation firm is less willing to conduct a large-scale M&A deal (*RELSIZE*), as discussed in Sharfman (1996) and Morgan (2009); and a higher level of social investment is connected with lower profitability (*ROA*). These results are closer to the arguments of shareholder theory. Except for the affiliation between the two CSR performance measures (*ENV* and *SOC*:  $p/\rho\text{ho} \geq 0.5$ ), no serious correlation exists between the variables. Therefore, the two CSR variables are included in the following regression models separately to avoid possible distortions in the estimates due to correlation problems.

##### 4.2. Multivariate regression analysis

To investigate the effects of CSR performance on market reactions to the M&A deal announcements, this study constructs a cross-sectional multivariate regression analysis using the five-day (-2, 2) *CAR* as the dependent variable, CSR performance measures (*ENV* and *SOC*) as the key independent variables, transaction-type variable focusing on cross-border deals (*CROSS*), and control variables discussed in Section 3.3. To avoid the possible multicollinearity problems caused by regressing two CSR performance variables with high correlation together, this study examines *ENV* and *SOC* variables separately in the following cross-sectional regression analyses.<sup>14</sup>

<sup>14</sup> A variance inflation factor index (VIF) is used to check for evidence of multicollinearity in all the regression models. No variable (except for the interaction terms as expected) has a VIF greater than 2. Furthermore, the relative stability of the results across various model specifications is another sign that multicollinearity

**Table 3**

Summary statistics for CSR, governance, transaction-type, and other variables.

Panel A CSR and Governance variables															
C.V.	Count		Mean		Me		Min		Max		Test on CAR				
											p-value	rho-value			
ENV	1986		53.05		52.27		8.20		90.60		-0.048**	-0.050**			
SOC	1986		49.40		49.60		4.04		95.35		-0.057**	-0.057**			
COG	1986		41.28		40.9		0.49		99.88		-0.046**	-0.039*			
LEG	1986		-0.06		-0.28		-0.95		1.22		0.002	0.017			
D.V.	Count		COG (%) for COGH/LEG (%) for LEGH						Test on CAR (%)						
		Mean	Me	Min	Max	Mean			Me	t/z-value					
COGH	Y	993	50.95	47.29	40.91	99.88			0.15	-0.05	-2.369**/-2.321**				
	N	993	31.61	33.14	0.49	40.89			0.57	0.58					
LEGH	Y	990	0.45	0.59	-0.28	1.22			0.22	0.28	-1.515/-1.455				
	N	996	-0.57	-0.56	-0.95	-0.28			0.49	0.32					
Panel B Transaction-type variable: Cross-border deals (CROSS)															
	Count		CAR (%)		ENV (%)		SOC (%)		COG (%)		LEG				
	Mean	Me	Mean	Me	Mean	Me	Mean	Me	Mean	Me	Me				
CROSS	Y	515	0.10	0.33	56.37	57.99	52.72	53.26	42.85	42.15	0.11	0.11			
	N	1471	0.45	0.28	51.89	50.39	48.24	47.70	40.73	40.76	-0.12	-0.34			
	t/z-value		-1.786*	1.507	5.173***	5.103***	5.051***	5.207***	2.826***	2.407***	7.330***	7.425***			
Panel C Correlation matrix among variables adopted in the multi-regressions															
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
[1] ENV	1.000	<b>0.673</b>	<b>0.140</b>	<b>0.293</b>	-0.014	<b>0.115</b>	<b>-0.051</b>	<b>-0.038</b>	<b>0.080</b>	<b>0.044</b>	<b>-0.062</b>	<b>0.150</b>	-0.027	<b>0.096</b>	0.026
[2] SOC	<b>0.671</b>	1.000	<b>0.315</b>	<b>0.270</b>	-0.013	<b>0.113</b>	<b>-0.058</b>	-0.018	<b>0.044</b>	0.032	<b>-0.057</b>	<b>0.071</b>	<b>-0.070</b>	<b>0.079</b>	0.011
[3] COGH	<b>0.133</b>	<b>0.315</b>	1.000	-0.036	<b>0.037</b>	0.026	-0.008	0.011	<b>-0.070</b>	-0.002	0.021	<b>-0.060</b>	-0.029	-0.009	-0.001
[4] LEGH	<b>0.304</b>	<b>0.292</b>	-0.036	1.000	<b>-0.161</b>	<b>0.171</b>	<b>-0.045</b>	<b>-0.045</b>	<b>0.040</b>	0.005	<b>-0.058</b>	<b>-0.068</b>	-0.013	<b>0.127</b>	<b>0.042</b>
[5] LEGdiff	-0.008	-0.028	0.026	<b>-0.117</b>	1.000	<b>0.363</b>	<b>-0.051</b>	<b>0.082</b>	<b>-0.040</b>	-0.008	-0.002	<b>0.066</b>	<b>-0.038</b>	-0.020	0.013
[6] CROSS	<b>0.115</b>	<b>0.118</b>	0.026	<b>0.171</b>	<b>0.327</b>	1.000	<b>-0.148</b>	<b>0.060</b>	<b>-0.095</b>	<b>-0.108</b>	<b>-0.048</b>	<b>0.148</b>	-0.016	0.016	<b>0.044</b>
[7] SHARE	<b>-0.055</b>	<b>-0.065</b>	-0.008	<b>-0.045</b>	<b>-0.046</b>	<b>-0.148</b>	1.000	0.029	-0.037	-0.026	<b>0.226</b>	<b>-0.110</b>	-0.009	0.026	<b>-0.124</b>
[8] FRIENDLY	<b>-0.040</b>	-0.017	0.011	<b>-0.045</b>	<b>0.085</b>	<b>0.060</b>	0.029	1.000	<b>-0.065</b>	<b>0.073</b>	0.019	0.020	0.008	0.016	-0.029
[9] TOEHLOLD	<b>0.078</b>	<b>0.047</b>	<b>-0.070</b>	<b>0.040</b>	<b>-0.059</b>	<b>-0.095</b>	-0.037	<b>-0.065</b>	1.000	0.024	-0.033	<b>0.057</b>	-0.009	<b>0.088</b>	0.016
[10] DIV	<b>0.038</b>	0.034	-0.002	0.005	0.002	<b>-0.108</b>	-0.026	<b>0.073</b>	0.024	1.000	0.021	-0.001	<b>-0.061</b>	0.029	-0.021
[11] RELSIZE	<b>-0.049</b>	<b>-0.056</b>	0.002	<b>0.053</b>	0.011	<b>-0.076</b>	<b>0.297</b>	<b>-0.087</b>	-0.011	<b>-0.101</b>	1.000	<b>-0.116</b>	<b>-0.093</b>	-0.002	-0.020
[12] LNSIZE	<b>0.193</b>	<b>0.134</b>	-0.023	-0.029	<b>0.051</b>	<b>0.178</b>	<b>-0.114</b>	0.009	<b>0.057</b>	-0.004	<b>-0.333</b>	1.000	<b>0.129</b>	0.003	<b>0.192</b>
[13] ROA	<b>0.054</b>	<b>-0.099</b>	<b>0.050</b>	<b>-0.088</b>	<b>0.070</b>	<b>0.097</b>	<b>-0.090</b>	<b>0.052</b>	<b>-0.060</b>	<b>-0.170</b>	<b>-0.136</b>	<b>0.187</b>	1.000	<b>-0.167</b>	<b>0.273</b>
[14] DEBT	<b>0.123</b>	<b>0.104</b>	-0.013	<b>0.154</b>	-0.037	<b>0.043</b>	-0.008	0.005	<b>0.110</b>	0.025	<b>-0.059</b>	<b>0.086</b>	<b>-0.207</b>	1.000	<b>-0.258</b>
[15] FCF	-0.005	-0.006	<b>-0.045</b>	<b>0.041</b>	0.032	<b>0.075</b>	<b>-0.084</b>	-0.038	0.002	-0.006	<b>-0.155</b>	<b>0.244</b>	<b>0.265</b>	<b>-0.154</b>	1.000

This table reports summary statistics for explanatory variables, including the CSR, governance, transaction-type and other control variables, which are considered to affect acquisition performance and the CSR-CAR link. The sample of 1986 M&As involving 743 acquiring firms in 23 EM countries between 2008 and 2014 was obtained from the Thomson Reuters SDC database. The selection criteria are presented in Section 3.1. The event study methodology used to estimate the five-day (-2, 2) CAR close to the M&A announcement date are described in Section 3.2. In Panel B, the Pearson/Spearman correlation coefficient is used to test the correlation degree between CAR and the continuous variables. Independent t-tests for equal means and Mann-Whitney (MW) tests for equal medians are performed to compare the two samples of dummy variables on CAR. In Panel C, the Pearson (Spearman) correlations are above (below) the diagonal. A correlation coefficient in bold indicates that the correlation is statistically significant above the 10% level. \*, \*\*, and \*\*\* represent significance at the 10%, 5%, and 1% levels, respectively. See Appendix A for variable definitions.

Although studying deal announcement returns indicating market reactions to unanticipated events can help avoid the potential endogeneity problem in estimating the effects of CSR performance, this study performs a Durbin-Wu-Hausman test (Davidson & Mackinnon, 1993; Hausman, 1978) to decide whether providing two-stage least squares (2SLS) regression results is necessary. Following Di Giuli (2013); Karampatsas, Petmezas, and Travlos, (2014); Bozzolan, Fabrizi, Mallin, and Michelon, (2015), and Jha and Cox (2015), we compute the industry mean of the CSR ratings (ENV\_JV, SOC\_JC) one year before announcement year  $t$  for all firms with CSR scores belonging to bidder  $i$ 's two-digit SIC code in bidder  $i$ 's county, excluding bidder  $i$ . The average CSR scores in an industry should be correlated with the level of the firms belonging to the industry, but it has no influence on the abnormal market

is not a serious concern. In addition, Panel C of Table 3 indicates that no serious correlation between the variables ( $p \leq 0.50$ ) exists, except for between the two CSR variables.

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returns or transaction type of any specific firm. The industry-mean CSR rating and firm-specific variables are adopted as instrumental variables to estimate the residuals of the CSR variables (env\_res and soc\_res); then, we perform augmented regressions on CAR by including the residual variables. The results show that the coefficients of the residual items for both ENV and SOC are not significantly different from 0, indicating that the OLS and 2SLS estimates are consistent. Excluding endogeneity concerns, 2SLS is not as efficient as OLS; hence, the following regression results are determined and presented using OLS models.<sup>15</sup>

<sup>15</sup> Besides testing the residuals of CSR variables on CAR, we also execute the same procedures on the transaction-type variable (CROSS) for the subsequent logistic regression models to investigate the effects of CSR performance on cross-border deal-making. The Hausman tests reveal that the F-value of env\_res on CAR and CROSS is 0.000 (p-value=0.9902) and 1.576 (p-value=0.1862), respectively; and the F-value of soc\_res on CAR and CROSS is 1.51 (p-value=0.2186) and 2.811 (p-value=0.0717), respectively. While the results of Hausman tests accepted the null hypothesis of no endogeneity at a 5% significance level for the residuals of CSR variables (res\_env and

**Table 4**

Cross-sectional regressions of CSR performance on CAR and the influence of governance quality.

Dependent: CAR	Model 1.1 (k = 1, ENV)	Model 1.2 (k = 2, SOC)	Model 2.1 (k = 1, ENV)	Model 2.2 (k = 2, SOC)
<b>CSR<sub>k</sub></b>	−0.003	−0.005	<b>−0.014 *</b>	0.000
<b>CSR<sub>k</sub>*COGH</b>			0.006	0.001
<b>CSR<sub>k</sub>*LEGH</b>			<b>0.022 **</b>	0.000
COGH			−0.008	−0.005
LEGH			−0.015 **	−0.003
CROSS	−0.001	0.000	0.000	0.001
LEGdiff	−0.001	−0.002	−0.001	−0.002
SHARE	0.010 ***	0.011 ***	0.010 **	0.011 ***
FRIENDLY	−0.003	−0.004	−0.003	−0.004
TOEHOOLD	−0.006 ***	−0.005 ***	−0.006 ***	−0.006 ***
DIV	0.000	−0.001	−0.001	−0.001
RELSIZE	0.002	0.002	0.002	0.002
LNSIZE	−0.002 ***	−0.002 ***	−0.002 ***	−0.002 ***
ROA	0.006 **	0.007 **	0.006 *	0.007 **
DEBT	−0.010	−0.010	−0.009	−0.009
FCF	−0.008	−0.008	−0.007	−0.007
Constant	0.029 ***	0.033 ***	0.038 ***	0.035 ***
F-value	5.059 ***	5.105 ***	4.673 **	4.529 **
adjusted R <sup>2</sup> (%)	4.1	4.2	4.4	4.3
N	1986	1986	1986	1986

This table presents the regression results for the effect of CSR performance on market reactions surrounding the M&A deal announcement. The sample of 1986 M&As involving 743 acquiring firms in 23 emerging market countries between 2008 and 2014 was obtained from the Thomson Reuters SDC database. The selection criteria are presented in Section 3.1. The dependent variable is the five-day (−2, 2) CAR close to the M&A announcement date, estimated using the event study methodology described in Section 3.2. The key independent variables ( $CSR_k$ ) are the CSR performance measures, with a focus on the environmental ( $k=1$ , ENV) and social rating ( $k=2$ , SOC), collected from the TRCRR database.  $CSR_k * COGH$  are the interaction variables between CSR performance measures and the firm-level governance index (COGH).  $CSR_k * LEGH$  are the interaction variables between CSR performance measures and the country-level governance index (LEGH). Since the cross-effect of internal and external governance quality is not the core of this study, the interaction variable  $COGH * LEGH$  is omitted from the regression models to avoid multicollinearity problems and complicated descriptions; as well as the  $CSR_k * COGH * LEGH$  interaction variables. The fixed effects of industry, year, and country if necessary, are included but not reported. \*, \*\*, and \*\*\* represent significance at the 10%, 5%, and 1% levels, respectively. See Appendix A for variable definitions.

#### 4.2.1. Effects of CSR performance on CAR (CSR–CAR link)

Table 4 displays the effects of pre-merger CSR performance on market reactions to M&As by EM acquirers. After firm- and deal-specific features are controlled for, Model 1.1 and Model 1.2 suggest that abnormal announcement returns decrease with the increase in both the environmental (ENV) and social performance (SOC) of EM acquirers. However, the CSR–CAR association is not statistically relevant. Referring to the negative CSR–CAR correlation in panel A of Table 3, the significance of CSR variables are substituted by firm-specific features, such as enterprise scale (LNSIZE) and profitability (ROA). It indicates that, without controlling the possible CSR agency problems, EM investors are more willing to believe that firms with higher degrees of CSR involvement may well have been the better performing or larger firms, and the financial costs appeared in these corporate characteristics are the major determinants of M&A performance. The result supports our first hypothesis (H1) by showing that neither the shareholder theory nor the stakeholder theory alone can explain the CSR effects (Groening & Kanuri, 2013) on M&A performance. Market investors have their own cost–benefit concerns regarding the level of acquirers’ pre-merger CSR performance when responding to M&A events.

res.soc) on both CAR and CROSS, we still follow the 2SLS procedure to run all testing models. The main empirical evidence is consistent with the results using the OLS and logistic approaches. As our cross-sectional designs already lag the independent variables from the dependent variables, we feel that simple OLS regressions are more suitable to avoid any new problems that may be caused by adopting inappropriate instrument variables.

#### 4.2.2. Influence of governance quality on the CSR–CAR link

Based on the evidence regarding the impact of CSR, we constructed regression models by adding the governance dummy variables (COGH, LEGH) to test whether agency problems are the investors’ major cost concern regarding the EM acquirers’ CSR involvement and whether it could be mitigated by improving firm- or country-level governance quality. In Model 2.1, we find a significant negative relationship between ENV and CAR ( $\beta = -0.014$ ) after the country-level governance quality is considered. Moreover, the interaction variable (ENV\*LEGH) is positively related to the market returns ( $\beta = 0.022$ ). These findings fully capture the CSR agency problems discussed in this study and show that the quality of country-level legal institutions can effectively comfort investors’ CSR agency concerns (H2); however, firm-level governance mechanisms alone are not sufficient to gain the investors’ trust.

Specifically, for acquirers from countries with poor legal environments, EM investors are concerned that agency problems may occur through CSR overspending on environmental issues in the interest of reputation enhancement to increase the success of deal-making. However, this type of CSR involvement, such as recycling, waste reduction, and resource creation, do not contribute to the future integration of firms after a merger. The benefits gained from such deals cannot cover the high costs of SRIs, thereby leading to a significantly weak long-term operating performance. In contrast, EM investors consider that CSR agency problems could be effectively mitigated if the acquirers are from countries with stronger legal protection environments (Claessens & Yurtoglu, 2013). In such a case, investors will reward acquirers that have a high level of environmental performance because they consider such CSR investments not as a form of overspending but rather as an effective channel of deal-making that will create synergies for post-merger performance (Bekier et al., 2001).

Such an ENV–LEG substitution effect does not apply to the inputs of social performance (Model 2.2). Investors have different expectations regarding how different SRI events will affect the success of M&A deals carried out by EM acquirers. This is reasonable because investors’ evaluation of M&A success is based not only on the shareholders’ abnormal returns but also on the alignment of interests across stakeholders. The key stakeholders in an M&A transaction, including employees, customers, suppliers, competitors, and local communities, are obviously more concerned about the acquirer’s CSR performance in societal issues such as employment quality, training, and human rights. In their perception of the cost–benefit effects of CSEs, EM investors believe that the costs related to a firm’s involvement in societal issues can be recovered by the benefits created from an acquisition investment, even if the acquirer’s social participation is beyond a certain level and is conducted without proper monitoring. The agency problem regarding pre-merger CSR investments in social activities is not the major cost concern for investors when responding to M&As. Therefore, neither firm-level nor country-level governance quality has an influence on the SOC–CAR link.

Moreover, we find that overly strong country-level legal enforcement itself may cause investors to have pessimistic expectations regarding M&A deals (LEG: −0.015 in Model 2.1). This supports the argument on optimal governance mechanisms<sup>16</sup> and shows that the so-called “better” governance practices may

<sup>16</sup> Following arguments on optimal governance mechanisms (Weir et al., 2002; Burkart et al., 2003), this study examined the relationship between the continuous variables of governance quality (COG, LEG) and abnormal announcement returns and identified the increase–decrease connections. Since the results are not a major concern in this study, they are not presented in tables to avoid complicated descriptions. In addition, we also try several legal indexes, including legal origin (La Porta, Lopez-De-Silanes, & Shleifer, 1999), revised anti-director right index (Djankov, La Porta, Lopez-De-Silanes, & Shleifer, 2008), and anti-self-dealing index (Djankov

**Table 5**

Logistic regressions of CSR performance on cross-border deals (CROSS) and the influence of governance quality.

Dependent: CROSS [1,0]	Model 3.1 (k = 1, ENV)	Model 3.2 (k = 2, SOC)	Model 4.1 (k = 1, ENV)	Model 4.2 (k = 2, SOC)
CSR <sub>k</sub>	<b>1.261 ***</b>	<b>1.624 ***</b>	0.565	<b>3.057 ***</b>
CSR <sub>k</sub> *COGH			0.169	-0.377
CSR <sub>k</sub> *LEGH			-0.779	<b>-2.940 ***</b>
COGH			0.026	0.196
LEGH			1.705 ***	2.704 ***
LEGdiff	1.190 ***	1.192 ***	1.364 ***	1.352 ***
SHARE	-20.037	-20.050	-20.070	-20.037
FRIENDLY	0.472 *	0.447 *	0.462 *	0.446 *
TOEHOOLD	-0.662 ***	-0.655 ***	-0.705 ***	-0.726 ***
DIV	-0.653 ***	-0.658 ***	-0.730 ***	-0.740 ***
RELSIZE	-0.501	-0.444	-0.370	-0.348
LNSIZE	0.094 ***	0.105 ***	0.166 ***	0.181 ***
ROA	-2.479 **	-2.389 **	-2.225 *	-2.240 **
DEBT	0.566	0.536	0.181	0.134
FCF	1.596	1.489	0.971	0.817
Constant	-2.484 ***	-2.716 ***	-3.362 ***	-4.501 ***
Chi-Square-value	328.782 ***	337.669 ***	396.721 **	412.330 ***
Cox & Snell R <sup>2</sup> (%)	19.8	20.3	23.4	24.2
N	1986	1986	1986	1986

This table presents the logistic regression coefficients ( $B$ ) for the effect of acquirers' pre-merger CSR performance on transaction types, with a focus on cross-border deals. The dependent variable is the dummy variable CROSS, equal to 1 if the deal involves an acquirer firm and a target firm whose headquarters are located in different home countries. The key independent variables (CSR<sub>k</sub>) are the CSR performance measures, representing the environmental ( $k = 1$ , ENV) and social ratings ( $k = 2$ , SOC), collected from the TRCRR database. CSR<sub>k</sub>\*COGH are the interaction variables between CSR performance measures and the firm-level governance index (COGH). CSR<sub>k</sub>\*LEGH are the interaction variables between CSR performance measures and the country-level governance index (LEGH). Since the cross-effect of internal and external governance quality is not the core of this study, the interaction variable COGH\*LEGH is omitted from the regression models to avoid the high multicollinearity problems and complicated descriptions; as well as the CSR<sub>k</sub>\*COGH\*LEGH interaction variables. The fixed effects of industry, year, and country if necessary, are included but not reported. \*, \*\*, and \*\*\* represent significance at the 10%, 5%, and 1% levels, respectively. See Appendix A for variable definitions.

reduce the likelihood of minority shareholders' expropriation but possibly lead to higher enforcement costs that are hard to be fully compensated for.

#### 4.2.3. Effects of CSR performance on cross-border deals (CSR-CROSS link)

Regarding the aforementioned CSR effects on market responses to M&As, there is a premise that a better pre-merger CSR performance contributes to the efficiency of M&A deal-making. However, does this premise really exist from the perspective of the acquirers? Table 5 shows the logistic regression results on the effects of acquirers' pre-merger CSR performance on setting overseas transactions. Models 3.1 and 3.2 indicate that an EM acquirer with better pre-merger CSR performance engages and completes an international deal more easily (ENV/SOC: 1.216/1.624). This confirms the statistics of the univariate tests shown in Panel B of Table 3 and suggests that EM acquirers generally enhance their corporate image through SRIs to obtain the recognition of overseas targets and thus increase the likelihood of deal completion (H3).

To determine whether the impact of CSR performance on cross-border deal-setting will vary according to different degrees of governance quality, Models 4.1 and 4.2 are further developed by adding the firm-level and country-level governance variables. The empirical evidence shows that the positive CSR-CROSS relationship exists only for the acquirers that have poorer governance quality and gain the CSR interests through a high level of social

et al., 2008). The results are generally consistent with the major conclusion in this study.

performance (SOC: 3.057 in Model 4.2) (H4). It indicates that pre-merger CSR performance focusing on the societal issues could be helpful in setting up cross-border deals but induces the potential CSR agency problems of EM acquirers. Fortunately, this type of CSR agency problems could be effectively curbed by legal institutions of acquirers' nations (SOC\*LEGH: -2.940 in Model 4.2).

In contrast, the results in Model 4.1 show that whether or not EM acquirers obtain overseas targets' recognition through a high level of environmental performance is not related to the governance quality of acquiring firms (ENV/ENV\*COGH/ENV\*LEGH: 0.565/0.169/-0.779 in Model 4.1 without significance). It indicates that undertaking larger SRIs in environmental issues is an effective way for cross-border deal-setting rather than a sub-optimal investment decision made by corporate insiders of EM acquirers at the expense of firm performance.

Additionally, compared with internal governance mechanisms, external legal institutions are more effective in reducing the probability that EM acquirers gain the CSR interests to make cross-border deals success (SOC\*COGH: -0.337 in Model 4.2 without significance). It's consistent with our intuition because the related parties of overseas targets may have more confidence in the country-level legal systems than that in firm-level governance mechanisms, especially for EM acquirers (LEG: 1.705/2.704 in Model 4.1/4.2). Moreover, when EM acquirers propose a cross-border deal, they are more willing to acquire target firms from countries with better legal environments than those of the acquirers themselves (LEGdiff in all models with significance)

#### 4.2.4. Effects of CSR interests (CSR-CROSS link) on CAR

Based on the above findings, the subsequent questions of this study are how the market responds to the deals benefiting from strong pre-merger CSR involvement and whether or not the governance quality of the acquiring firms has any influence on this market reaction. By adding the interaction variables between cross-border deal and CSR performance (CSR<sub>k</sub>\*CROSS) in Table 6, we find that the relationships between deal announcement returns and the level of pre-merger CSR performance of acquirers conducting cross-border deals are still irrelevant if agency problems are not considered (ENV\*CROSS/SOC\*CROSS: 0.012/-0.001 in Model 5.1/5.2 without significance). This result supports Hypothesis 5 (H5) and reconfirms our initial argument that the CSR theory in previous literature (the stakeholder or shareholder theory) does not always explain the effects of CSR on M&A performance. Market reactions to the effects of acquirers' pre-merger CSR performance on deal success depend mainly on the direct consideration of the cost-benefit of SRI itself rather than on the indirect CSR interests of improving the efficiency of deal-setting. Regarding this point, EM investors with CSR agency concerns are still more willing to believe that deal-specific or firm-specific features are the major determinants of M&A performance (ENV/SOC: -0.003/-0.005 in Model 5.1/5.2 without significance).

#### 4.2.5. Influence of governance quality on the effects of CSR interests

By considering the effects of governance quality, we find that the relationship between the CAR and the CSR-CROSS interaction variables are significantly positive for the acquiring firms with better governance quality (CSR<sub>k</sub>\*CROSS\*COGH and CSR<sub>k</sub>\*CROSS\*LEGH in Model 6.1 and 6.2), except for the ENV\*CROSS\*COGH group ( $\beta = 0.011$  in Model 6.1 without significance). In other words, EM investors believe that both internal and external supervision could effectively reduce the CSR agency costs caused by taking advantage of CSR through strong social involvement. However, only country-level legal institutions are capable of mitigating CSR agency problems induced by the CSR interests through significant environmental expenditure. Moreover, EM investors show their

**Table 6**

Regression analysis of cross-border deals and CSR performance on CAR and the influence of governance quality.

Dependent: CAR	Model 5.1 (k = 1, ENV)	Model 5.2 (k = 2, SOC)	Model 6.1 (k = 1, ENV)	Model 6.2 (k = 2, SOC)
CSR <sub>k</sub>	-0.003	-0.005	-0.010	0.009
<b>CSR<sub>k</sub>*CROSS</b>	0.012	-0.001	-0.011	<b>-0.034**</b>
<b>CSR<sub>k</sub>*CROSS*COGH</b>			0.011	<b>0.016**</b>
<b>CSR<sub>k</sub>*CROSS*LEGH</b>			<b>0.017**</b>	<b>0.021**</b>
CSR <sub>k</sub> *COGH			0.002	-0.003
CSR <sub>k</sub> *LEGH			0.016	-0.006
COGH			-0.008	-0.005
LEGH			<b>-0.013**</b>	-0.002
CROSS	-0.007	0.001	-0.004	0.006
LEGdiff	-0.001	-0.002	0.000	0.000
SHARE	0.011	0.011***	0.010***	0.011***
FRIENDLY	-0.004	-0.004	-0.003	-0.004
TOEHOLD	-0.005***	-0.006***	-0.006***	-0.006***
DIV	-0.001	-0.001	-0.001	-0.001
RELSIZE	0.002	0.002	0.002	0.002
LNSIZE	-0.002***	-0.002***	-0.002***	-0.002***
ROA	0.008**	0.007**	0.006**	0.007**
DEBT	-0.010*	-0.010*	-0.008	-0.009
FCF	-0.008	-0.008	-0.007	-0.007
Constant	0.032***	0.033***	0.038***	0.033***
F-value	4.870***	4.872***	4.461***	4.366***
adjusted R <sup>2</sup> (%)	4.1	4.1	4.7	4.5
N	1986	1986	1986	1986

This table presents the regression results for the interaction effect of CSR performance and transaction types on market reactions surrounding the M&A deal announcement. The sample of 1986 M&As involving 743 acquiring firms in 23 emerging market countries between 2008 and 2014 was obtained from the Thomson Reuters SDC database. The selection criteria are presented in Section 3.1. The dependent variable is the five-day (-2, 2) CAR close to the M&A announcement date, estimated using the event study methodology described in Section 3.2. The key independent variables are the CSR performance measures ( $CSR_k$ : ENV, SOC) and the interaction variables ( $CSR_k * CROSS$ : ENV\*CROSS, SOC\*CROSS).  $CSR_k * CROSS * COGH$  and  $CSR_k * CROSS * LEGH$  are the interaction variables between CSR performance measures, cross-border deals and governance indexes (COGH, LEGH). Since the effects of cross-border deal itself and the cross-effect of internal and external governance quality are not the core of this study, the interaction variables CROSS\*COGH, CROSS\*LEGH and COGH\*LEGH are omitted from the regression models to avoid the high multicollinearity problems and complicated descriptions; as well as the interaction variables:  $CSR_k * COGH * LEGH$ , CROSS\*COGH\*LEGH, and  $CSR_k * CROSS * COGH * LEGH$ . The fixed effects of industry, year, and country if necessary, are included but not reported. \*, \*\*, and \*\*\* represent significance at the 10%, 5%, and 1% levels, respectively. See Appendix A for variable definitions.

most serious agency concerns about executing unprofitable CSR social programs in pursuing cross-border deals if the corporate governance mechanisms of the acquirer itself are inadequate and its legal systems are incomplete ( $SOC * CROSS$ : -0.034 in Model 6.2).

The summarized empirical results of regression models in Tables 4 to 6 provide sufficient evidence to explain the cause–effect link between acquirers' pre-merger CSR performance, the impact of CSR interests on deal-setting, and short-term market reactions to the announcement of such deals. It mainly tells that while agency problems regarding pre-merger CSR expenditure on social activities are not market investors' major CSR cost concerns when responding to M&As (see Model 2.2 in Table 4), EM acquirers with inferior governance quality do have potential agency problems on taking advantage of the superior social performance to increase the likelihood of cross-border deal success (see Model 4.2 in Table 5). If cross-border deals are carried out by such EM acquirers, investors will be aware of the hidden agency costs in those transactions and therefore have a pessimistic view toward the degree of the acquirers' social involvement (see Model 6.2 in Table 6).

In contrast, market investors hold their optimistic expectations regarding overseas transactions benefiting from the environmental performance of EM acquirers in a reliable legal environment (see Model 2.1 in Table 4 and Model 6.1 in Table 6), because they believe that this type of CSR investment undertaken by such acquirers is not

a form of overspending but rather an effective way of deal-making. In reality, most EM acquirers (not necessarily from countries with the good legal environment) meet the expectation of investors in the respect of cross-border deal-making (see Model 4.1 in Table 5).

#### 4.3. Additional analysis on post-merger operating performance

One stream of M&A studies argues that acquisition deals are motivated by expected synergy but that short-term stock price performance around the announcement does not indicate whether takeovers create real economic gains in the long run (Healy et al., 1992; Sharma & Ho, 2002). This synergy hypothesis indicates that, if a market is efficient and if the stock price reflects the anticipation of acquisition synergy, merger events should lead to improved financial and operating performance for the combined firms.

Therefore, to supplement the evidence regarding the cause–effect link between CSR and M&A performance, this study provides an additional analysis on long-term post-merger operating performance to investigate whether corporate acquisitions generate significant economic improvements in operating performance after M&As and how CSR performance is related to such improvements.

Following the Healy et al. (1992) model, we use pre-tax operating cash flow to measure acquisition performance. Operating cash flow is defined as operating income after depreciation plus depreciation and goodwill amortization. Operating cash flow return is calculated as operating cash flow divided by the market value of assets at the beginning of each year. Considering that abnormal returns measured by the change in performance are likely contributed to by industry factors or by the continuous outperformance of the acquiring firm itself, we further construct an industry-size-performance benchmark on the basis of the two-digit GICS industry definitions (10 codes), firm size measured by market value of equity (quartiles), and pre-performance indexed by ROA (dichotomy) at one year before acquisition. The benchmark performance is measured by the median cash flow returns of the industry, excluding the acquirer's performance. After the industry-size-performance adjusted operating cash flow returns (OCFRs) are calculated for each three years before ( $OCFR_3$ ,  $OCFR_2$ ,  $OCFR_1$ ) and after ( $OCFR_1$ ,  $OCFR_2$ ,  $OCFR_3$ ) the transaction year, the median of OCFRs three years before and after acquisition is used as a measure of pre- ( $OCFR_{PRE}$ ) and post- ( $OCFR_{POST}$ ) operating performance (Healy et al., 1992; Linn & Switzer, 2001; Loughran & Vijh, 1997). Furthermore, as the underlying purpose of this additional analysis is to provide further evidence on the association between the degree of pre-merger CSR involvement and the improvements in post-merger operating performance, we follow Ghosh (2001) approach and adopt the change in cash flow return ( $ABOCFR$ ) as an estimator to examine the abnormal cash flow return created by M&A activities.  $ABOCFR$  is defined as  $OCFR_{POST}$  minus  $OCFR_{PRE}$ .

Table 7 presents the summary data for the industry-size-performance adjusted operating cash flow returns (pre, post, and change). The results in Panel A indicate that acquiring firms in the sample are performing better than their industry counterparts in the pre- and post-acquisition periods and experience acquisition-related improvements after transactions. Compared to the results of our previous findings about the positive deal announcement market returns (see Table 2), these results are not only consistent with the literature's arguments regarding significant improvements in abnormal adjusted cash flow returns after acquisitions (Linn & Switzer, 2001) but, importantly, also support the synergy hypothesis that short-term market performance is based on investors' rational expectations and could reflect future operating performance.

Panel B presents the regression results regarding the median increase of operating performance ( $ABOCFR$ ) based on the effects

**Table 7**

The improvements in post-merger operating performance (ABOCFRs).

Panel A Summary statistics for industry-size-performance adjusted operating cash flow rates (OCFRs)							
	#	Mean (%)	Me (%)	Sd (%)	Positive (%)	t-stat.	WSR-stat.
OCFR_3	1644	1.222	0.256	5.176	52.92	9.576 ***	7.381 ***
OCFR_2	1780	1.437	0.452	5.641	53.60	10.747 ***	8.064 ***
OCFR_1	1986	1.393	0.223	5.965	51.91	10.004 ***	6.913 ***
OCFRPRE	1986	1.188	0.364	5.248	53.41	9.727 ***	6.790 ***
OCFR1	1986	1.688	1.281	5.035	57.01	14.437 ***	11.718 ***
OCFR2	1614	1.685	1.333	4.982	58.67	13.587 ***	10.989 ***
OCFR3	980	2.448	1.968	4.514	65.31	16.978 ***	13.507 ***
OCFRPOST	1986	1.766	1.319	4.789	59.83	15.896 ***	13.005 ***
ABOCFR	1986	0.575	0.395	3.885	58.28	6.597 ***	6.378 ***
ABOCFR23	1986	0.535	0.314	3.939	55.23	5.833 ***	5.115 ***
ABOCFR13	1986	0.515	0.395	4.088	56.62	5.408 ***	5.160 ***
ABOCFR11	1986	0.325	0.418	4.484	54.20	3.105 ***	2.874 ***

  

Panel B Regressions of CSR performance, governance quality, and cross-border deals on ABOCFR							
Dependent: ABOCFR	Model 7.1 (k = 1, ENV)	Model 7.2 (k = 2, SOC)	Model 8.1 (k = 1, ENV)	Model 8.2 (k = 2, SOC)			
CSRk	<b>-1.590 ***</b>	<b>-1.860 ***</b>	<b>-2.807 **</b>	<b>-2.350 **</b>			
CSRk*CROSS			1.718	1.456			
CSRk*CROSS*COGH			0.193	0.024			
CSRk*CROSS*LEGH			0.406	-0.218			
CSRk*COGH			-1.365	-1.695			
CSRk*LEGH			<b>2.220 *</b>	1.577			
COGH	0.027	0.149	0.682	0.976 *			
LEGH	-0.573 ***	-0.575 ***	-1.725 ***	-1.277 **			
CROSS	-0.175	-0.151	-1.361	-0.828			
LEGdiff	<b>0.299 **</b>	<b>0.293 **</b>	<b>0.397 **</b>	<b>0.326 **</b>			
SHARE	0.639 *	0.620 *	0.579	0.580			
FRIENDLY	0.304	0.328	0.295	0.319			
TOEHOOLD	-0.265	-0.267	-0.256	-0.262			
DIV	-0.364 **	-0.382 **	-0.392 **	-0.382 **			
RELSIZE	0.033	0.027	0.021	0.021			
LNSIZE	0.076 *	0.072 *	0.087 *	0.073 *			
ROA	-0.108	-0.139	-0.076	-0.124			
DEBT	2.380 ***	2.394 ***	2.404 ***	2.456 ***			
FCF	0.482	0.468	0.511	0.486			
Constant	1.104 **	1.161 **	1.539 **	1.282 *			
F-value	3.816 ***	3.982 ***	3.542 ***	3.505 ***			
adjusted R <sup>2</sup> (%)	3.2	3.3	3.5	3.4			
N	1986	1986	1986	1986			

This table reports summary statistics for post-merger operating performance of acquirers. The sample of 1986 mergers and acquisitions involving 743 acquiring firms in 23 emerging market countries between 2008 and 2014 was obtained from the Thomson Reuters SDC database. The selection criteria are presented in Section 3.1. Operating cash flow return (OCFR) is calculated as operating cash flow divided by market value of assets, adjusted by industry-size-performance benchmark performance. Detailed calculation processes for OCFR are explained in Section 4.3. Outliers have been winsorized using Huber's M estimator ( $k = 1.28$ ) approach. One sample t-tests and Wilcoxon signed ranks (WSR) tests are performed to assess the statistical significance of means and medians. The key independent variables in regression models are the CSR performance measures ( $CSR_k$ : ENV, SOC) and the interaction variables ( $CSR_k * CROSS: ENV * CROSS, SOC * CROSS$ ).  $CSR_k * CROSS * COGH$  and  $CSR_k * CROSS * LEGH$  are the interaction variables between CSR performance measures, cross-border deals and the governance index (COGH, LEGH). Since the effects of cross-border deal itself and the cross-effect of internal and external governance quality are not the core of this study, the interaction variables  $CROSS * COGH$ ,  $CROSS * LEGH$  and  $COGH * LEGH$  are omitted from the regression models to avoid the high multicollinearity problems and complicated descriptions; as well as the  $CSR_k * COGH * LEGH$ ,  $CROSS * COGH * LEGH$ , and  $CSR_k * CROSS * COGH * LEGH$  interaction variables. The fixed effects of industry, year, and country if necessary, are included but not reported. \*, \*\*, and \*\*\* represent significance at the 10%, 5%, and 1% levels, respectively. See Appendix A for variable definitions.

of acquirers' pre-merger CSR performance, the influence of governance quality, and the CSR interests on cross-border deal-setting. First, on average, EM acquirers' pre-merger CSR performance has a negative effect on their post-merger financial improvements (ENV/SOC: -1.590/-1.860 in Model 7.1/7.2). This result strongly supports the shareholder theory but contradicts the conclusions of Deng et al. (2013) regarding US acquirers. The negative CSR – ABOCFR association is significant even for EM acquirers with poor governance quality (ENV/SOC: -2.807/-2.350 in Model 8.1/8.2). A significant positive relationship between CSR – ABOCFR is observed only for the acquirers that come from the countries with relatively healthy legal environments and undertake larger SRIs in environmental issues (ENV\*LEGH: 2.220 in Model 8.1). The interaction variables between pre-merger CSR performance and cross-border deals are all unrelated to the ABOCFRs, regardless of the governance quality ( $CSR_k * CROSS$ ,  $CSR_k * CROSS * COGH$ ,

$CSR_k * CROSS * LEGH$  in Model 8.1 and 8.2 without significance). In other words, undertaking a large SRIs may help firms to achieve their CSR goals but such overseas deals fail to make significant acquisition-related improvements in the long run.

The empirical regression results of this additional analysis basically match our evidence regarding short-term abnormal returns. Market investors with CSR agency concerns do not consider the acquirers' pre-merger CSR performance as a signal for investment during the M&A announcement period, and the related CSR agency costs do impair the financial performance in the long run after the merger. Moreover, regarding the CSR interests to enhance cross-border deal-setting, market investors expect the synergies created by effective deals and reward the EM acquirers with superior governance quality. However, cross-border deals conducted by EM sample acquirers fail to report significant post-merger financial improvements in the long run.

Additionally, we observe that the larger legal difference (*LEGdiff*), indicating the better governance quality of the targets' nations compared to that of acquirers' nations, is irrelevant to market abnormal returns (see **Tables 4 and 6**) but significantly leads to the better long-term operating performance of the combined firms. These results are inconsistent with the evidence obtained by **Feito-Ruiz and Menéndez-Requejo (2011)** for European M&As. We believe that if an EM acquirer comes from a country with a poorer legal environment than that of its target firm, the acquirer will be forced to improve its governance quality, thereby leading to value enhancement.

## 5. Conclusions

This study joins the ongoing debate about the effects of CSR activities on corporate performance with a focus on market reactions to M&A events among emerging markets. Our results provide the following empirical evidence.

**First**, we present that investors have their own cost–benefit concerns regarding the level of acquirers' pre-merger CSR performance when responding to M&As. Market reactions to M&A performance cannot always be explained by the shareholder or the stakeholder theory.

**Second**, we find that investors have different expectations for how different SRI events will affect the success of M&As carried out by EM acquirers, and therefore have different agency cost concerns for different SRI events. Investors believe that EM acquirers may boost their CSR spending on environmental issues for reputation enhancement to increase the efficiency of deal-making; however, the benefits gained from such deals cannot cover the high costs of CSR inputs. In contrast, EM investors believe that the costs related to a firm's involvement in societal issues can be recovered by the benefits created from an acquisition investment, even if the acquirer's social participation is beyond a certain level. Therefore, agency problems regarding CSR expenditure on environmental issues are EM investors' crucial considerations when responding to M&As. The high quality of country-level legal institutions can effectively mitigate these CSR agency concerns; however, firm-level governance mechanisms alone are not sufficient to obtain investors' trust.

**Third**, we prove that EM acquirers are inclined to enhance their corporate image through SRIs to gain recognition from overseas targets and thereby increase the likelihood of a successful international deal. However, market reactions to the CSR effects on such a deal still largely depend on the direct cost–benefit concerns regarding the CSR performance itself rather than the indirect benefits of CSR achievements for deal efficiency. CSR agency costs are still the major cost concerns of investors regarding the CSR interests. For acquirers with poor governance quality, they prefer to take advantage of their large SRIs to gain access to the markets of other countries via high social investments rather than through environmental spending. While this is not the channel that market investors are concerned about regarding CSR agency costs, they are aware of the hidden agency costs in the cross-border deals that benefit from unprofitable CSR social programs implemented by EM

acquirers. Fortunately, this agency cost concern could be effectively mitigated by the acquirers' enhanced governance quality.

**Last**, the additional analyses regarding the long-term post-merger operating performance confirm the synergy hypothesis by showing that EM acquirers in the sample perform better than their industry counterparts in both pre- and post-acquisition periods and generate more acquisition-related improvements after M&As. However, the pre-merger CSR performance of sample acquirers has negative effects on abnormal operating returns. The acquiring firms from countries with established legal environments and holding higher levels of environmental performance are the only group that market investors' optimistic expectation reflects the significant positive post-merger financial improvements. In addition, pre-merger CSR performance of EM acquirers could be helpful in setting up cross-border deals but such overseas deals eventually fail to make significant acquisition-related improvements. Moreover, we observe that the better governance quality of targets' nations compared to that of the acquirers' nations significantly leads to the better long-term operating performance of the combined firms; however, the importance of this legal difference is overlooked by the market investors. **Finally**, by studying samples across emerging countries, we do find different levels of country-level legal enforcement have different impacts on reducing agency problems and on the M&A performance. Therefore, the consensus of previous research that emerging countries are collectively as examples of weak governance quality is not appropriate.

Regarding the control variables, the results for deal characteristics include a positive coefficient of *SHARE*, suggesting that investors expect stock trading to positively influence the integration process and future financial achievements of the combined firm; and a negative response to the presence of *TOEHOLD*, confirming that, under situations of asymmetric information, toehold interests are signals for the related transactions that EM acquirers use as tunneling channels at the expense of firm performance (**Bae, Kang, & Kim, 2002; Friedman, Johnson, & Mitton, 2003; Cheung et al., 2010**). Among the firm variables, the negative size effect (*LNSIZE*) is consistent with the hubris hypothesis (**Jensen, 1986; Moeller, Schlingemann, & Stulz, 2004; Roll, 1986**) that top managers in large firms tend to offer high premiums that yield negative returns. Accounting earnings (*ROA*) is verified as a significant explanatory variable for stock returns (**Balachandran & Mohanram, 2012; Easton & Harris, 1991**).

The major limitation of this study concerns the difficulty of collecting ownership data for multiple companies, which hindered us from examining the typical agency problems regarding ownership issues in EMs. Moreover, future research could investigate the cross effects of country- and firm-level governance mechanisms on firms' market or operating performance according to the CSR performance of acquiring firms.

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## Appendix A. Variable definitions

Dependent variable	
<i>CAR</i>	Standardized cumulative abnormal return calculated with the market model by 5-day event window, including 2 days before and 2 days after the earnings announcement date ( $-2, +2$ ), where event day 0 is the acquisition announcement date. Data come from the DataStream database.
<i>CSR variables</i>	
<i>ENV</i>	A continuous variable, representing a percentage of the environmental ratings assigned to the acquiring firms prior to the deal announcement year. Data come from the Thomson Reuters Corporate Responsibility Ratings (TRCRR) database.
<i>SOC</i>	A continuous variable, representing a percentage of the social ratings assigned to the acquiring firms prior to the deal announcement year. Data come from the TRCRR database.

Governance variables															
COGH															
LEGH															
Transaction-type variable															
CROSS															
Other control variables															
LEGdiff															
SHARE															
FRIENDLY															
TOEHOLD															
DIV															
RELSIZE															
LNSIZE															
ROA															
DEBT															
FCF															
COUNTRY <sub>h</sub>															
IND <sub>m</sub>															
YEAR <sub>n</sub>															

## Appendix B. Summaries of CSR performance ratings, firm-level governance ratings, and country-level legal index

Country	Count	Environment rating (ENV)				Social rating (SOC)				Corporate governance rating (COG)				Worldwide governance indicators (LEG)			
		Mean	Median	Min	Max	Mean	Median	Min	Max	Mean	Median	Min	Max	Mean	Median	Min	Max
Brazil	112	62.44	63.51	9.10	86.10	61.06	64.37	14.50	95.23	47.16	44.16	26.13	91.89	0.06	0.08	-0.04	0.13
Chile	33	53.42	51.26	33.50	83.70	49.34	52.19	28.55	83.41	33.48	32.71	20.60	77.64	1.19	1.19	1.17	1.22
China	433	42.04	40.40	27.18	80.68	39.28	38.11	14.50	80.11	40.55	40.91	28.81	91.85	-0.53	-0.56	-0.58	-0.48
Colombia	26	55.32	54.85	35.40	72.75	55.59	52.09	26.40	78.81	51.49	52.04	26.13	71.57	-0.33	-0.30	-0.46	-0.24
Czech	15	69.26	70.50	44.77	76.33	60.04	62.00	52.79	62.01	42.16	38.76	38.35	64.09	0.92	0.92	0.89	0.94
Egypt	9	44.23	33.05	27.00	77.62	46.93	41.10	26.20	79.39	37.24	26.20	18.89	74.34	-0.71	-0.76	-0.95	-0.48
Greece	53	54.17	52.90	28.16	77.80	52.32	50.36	24.63	76.57	37.31	34.09	8.24	94.77	0.43	0.42	0.24	0.61
Hungary	6	73.90	72.92	63.90	90.00	71.48	70.76	68.95	77.70	41.95	41.50	30.57	53.59	0.67	0.67	0.53	0.74
India	126	55.15	52.40	8.20	87.10	60.47	59.00	25.14	88.19	47.31	46.13	19.60	95.35	-0.30	-0.29	-0.35	-0.22
Indonesia	34	55.22	60.27	8.20	83.60	59.01	57.12	41.80	82.30	44.34	44.79	33.10	67.24	-0.42	-0.48	-0.49	-0.22
Israel	28	50.97	45.98	26.55	71.33	35.80	36.23	14.50	61.49	37.76	40.09	7.41	59.23	0.60	0.61	0.50	0.68
Malaysia	69	45.32	43.90	10.50	80.68	50.45	52.12	7.00	89.65	45.92	45.91	16.25	74.47	0.32	0.31	0.19	0.48
Mexico	81	44.53	39.21	9.10	83.00	39.68	34.69	5.23	82.80	33.15	34.30	0.49	67.40	-0.16	-0.15	-0.23	-0.11
Morocco	8	57.04	56.94	28.71	83.50	51.37	56.12	38.42	67.97	52.81	53.16	18.03	81.60	-0.34	-0.33	-0.40	-0.27
Peru	14	47.36	43.32	24.33	75.75	46.04	40.53	21.63	77.61	40.47	40.78	28.70	47.00	-0.23	-0.23	-0.34	-0.19
Philippines	29	47.69	52.50	19.31	82.28	50.47	47.48	23.58	83.25	44.73	42.50	23.00	73.09	-0.36	-0.30	-0.55	-0.19
Poland	30	47.31	43.11	27.52	84.80	48.70	45.70	20.80	79.68	37.08	38.20	21.20	68.92	0.85	0.86	0.76	0.88
Russian Fed	353	52.76	56.38	9.80	77.10	43.99	44.77	11.90	74.95	39.43	39.61	5.89	93.53	-0.74	-0.75	-0.76	-0.69
South Africa	83	58.21	61.43	9.10	79.70	56.05	57.91	17.90	80.90	58.01	59.30	33.10	79.21	0.24	0.25	0.21	0.32
South Korea	295	66.52	73.49	9.10	90.60	57.65	59.20	12.24	95.35	38.00	37.18	11.57	99.88	0.77	0.77	0.70	0.82
Taiwan	86	57.87	61.77	21.57	80.68	52.85	51.38	4.04	84.87	34.83	33.17	14.10	98.48	0.97	0.98	0.84	1.05
Thailand	38	53.25	45.20	8.20	84.80	60.62	55.04	40.10	86.10	50.63	49.38	30.13	65.02	-0.30	-0.30	-0.35	-0.27
Turkey	25	48.84	35.89	28.80	83.20	52.78	54.02	29.26	82.80	34.50	28.31	18.11	68.74	-0.06	-0.05	-0.13	-0.02
Full Sample	1986	53.05	52.27	8.20	90.60	49.40	49.60	4.04	95.35	41.28	40.90	0.49	99.88	-0.06	-0.28	-0.95	1.22

This table reports summaries of CSR performance, firm-level, and country-level governance measures. CSR performance measures are rating scores, including environment ratings and social ratings, assigned to each acquirer prior to the announcement year from the TRCRR database. Firm-level governance measure is the corporate governance rating from the TRCRR database. Country-level governance measure is the average value of six Worldwide Governance Indicators (WGI) assigned for the acquirer's nation by the World Bank Institute (Kaufmann et al., 2016). The sample of 1986 M&As involving 743 acquiring firms in 23 EM countries between 2008 and 2014 was obtained from the Thomson Reuters SDC Database. The selection criteria are presented in Section 3.1. The definitions and sources of CSR performance and firm-level and country-level governance measures are explained in Section 3.3.

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